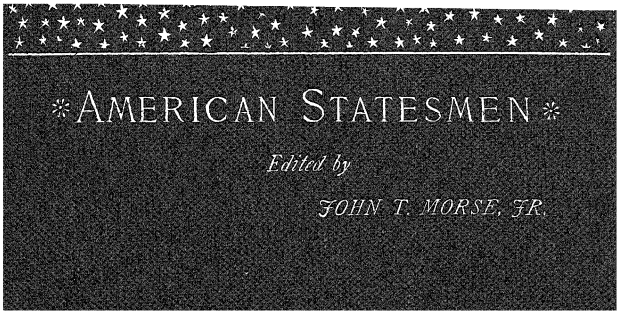
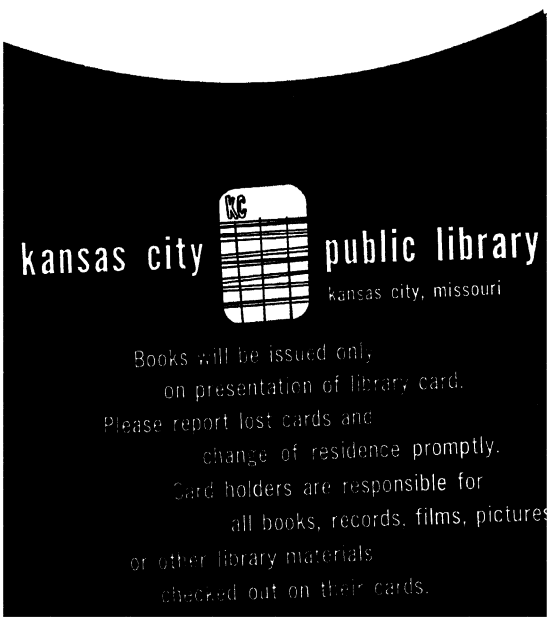

AMERICAN STATESMEN
Edited by
JOHN T. MORSE, JR.


EX LIBRIS
OUT OF THE OLD FIELDES AS MEN SAITHE
COMETH AL THIS NEW CORNE FRO TO YERE TO YERE
ALFRED AND JOSEPHINE GREGORY


PUBLIC LIBRARY

92 H2175L
Lodge
...Alexander Hamilton

58-17774



American Statesmen

EDITED BY

JOHN T. MORSE, JR.

American Statesmen

ALEXANDER HAMILTON

BY

HENRY CABOT LODGE

EIGHTH EDITION.

BOSTON
HOUGHTON, MIFFLIN AND COMPANY
NEW YORK: 11 EAST SEVENTEENTH STREET
The Riverside Press, Cambridge
1884

Copyright, 1882,
By HENRY CABOT LODGE.

All rights reserved.

The Riverside Press, Cambridge:
Stereotyped and Printed by H. O. Houghton and Company.

CONTENTS.

CHAPTER I.

PAGE

BOYHOOD AND YOUTH 1

CHAPTER II.

THE REVOLUTION 13

CHAPTER III.

LAW AND POLITICS 32

CHAPTER IV.

THE CONSTITUTION 50

CHAPTER V.

THE TREASURY AND THE FINANCIAL POLICY . . 84

CHAPTER VI.

THE RESULTS OF THE FINANCIAL POLICY . . 117

CHAPTER VII.

PARTY CONTESTS 136

CHAPTER VIII.

FOREIGN RELATIONS AND THE MAINTENANCE OF THE AUTHORITY OF THE GOVERNMENT 153

CHAPTER IX.

PAGE
THE JAY TREATY AND THE ADAMS ADMINISTRATION 188

CHAPTER X.

PROFESSIONAL LIFE. — DUEL AND DEATH . . . 237

APPENDIX 285

ALEXANDER HAMILTON.

CHAPTER I.

BOYHOOD AND YOUTH.

On the eleventh day of January in the year 1757, the wife of a Scotch merchant in the island of Nevis gave birth to a son, who received the name of Alexander Hamilton.[1] Many varying elements were mingled in this boy. He was a British subject born in the tropics, Scotch on his father's side and of French Huguenot descent on his mother's. To this conjunction many of the qualities which Hamilton exhibited in after life may be traced. But that which strikes us most at the outset is his extraordinary precocity; his mind and character seemed to partake of the nature of those luxuriant tropical plants which in a few months attain a growth permitted only after years of conflict and care in the harsher climate of the North. Upon the childhood of Hamilton even the exhaustive and devoted labors of his son and biographer, Mr. John C. Hamilton, fail to throw

[1] See Appendix, Note A.

much light. His mother, who apparently possessed an unusual degree of wit and beauty, died early. His father was unsuccessful in business, and Alexander, the only surviving child, fell to the care of maternal relations, among whom he picked up a rude, odd, and desultory sort of education, and by whom he was placed in a counting-room before he was twelve years old.

There at his clerkly desk we catch the first clear glimpse of the future statesman in the well-known letter addressed to his friend Edward Stevens: "I contemn the grovelling condition of a clerk, or the like," he says, "to which my fortune condemns me, and would willingly risk my life though not my character, to exalt my station. I am confident, Ned, that my youth excludes me from any hopes of immediate preferment, nor do I desire it; but I mean to prepare the way for futurity." The expression savors of the grandiloquence of the last century, but the thought is natural and even sober, and is moreover that of a man, and yet it was uttered by a boy who had not passed his thirteenth birthday. At the same tender age he was left in charge of his employer's affairs, and some of his correspondence of that time has been preserved to us. These clear and sensible letters of business have nothing in

themselves unusual, but it is not a little remarkable that they should be the work of a lad whose contemporaries were studying the rudiments of grammar on school benches, and whose capacity was great enough not only to write such letters but practically to manage on his own responsibility the concerns of a considerable merchant.

In the intervals of his office work Hamilton read and wrote much; Pope and Plutarch, we are told, were his favorite authors, and to his exercises in composition was due the publication of a vivid account of a severe hurricane which raged with devastating force in the West Indies. This literary effort attracted a good deal of attention, especially among those vague relatives to whom the boy's interests were intrusted, and by them it was decided that so much talent deserved wider opportunities than could be found in a West Indian counting-house. Funds were provided, and in his fifteenth year Hamilton bade a final adieu to his birthplace and took ship for Boston, where he arrived in October, 1772. Thence he proceeded to New York where, thanks to letters from the excellent Dr. Knox, a Presbyterian clergyman of Nevis, and one of the boy's earliest friends, he found wise and good counsellors. By their advice he entered a grammar school of some

note at Elizabethtown, where he extended his acquaintance, and where during the winter he pursued his studies with the fiery and unresting energy so characteristic of him throughout his life. At odd moments he indulged in his propensity for writing. He produced not only prose but poetry, including hymns, elegies, and verses of all sorts, which were not without the merit inseparable from the work of an active, fresh, and fertile mind. At the end of the year he was ready for college. His first thought was for Princeton, but, as he characteristically proposed to go through the course as rapidly as he could without regard to classes, the rules of the college would not permit his admittance, and he entered King's College in New York, where he prosecuted his studies with the aid of a private tutor as fast as he wished. In the university as at school he threw himself heart and soul into his work, gathering up knowledge with quick apprehension, while the tireless activity of his mind continually sent his thoughts ranging into other and wider fields of finance, government, and politics. It was then his custom of an afternoon, as we are told, to walk under the shadow of the trees on Batteau Street, plunged in thought and talking eagerly to himself. The passers-by would turn to look at the small, slight youth, still a mere boy in appearance, dark of skin,

and with deep-set eyes; and those who knew the "young West Indian," as he was called, already speculated about him vaguely as people are wont to do about those who give or seem to give obvious promise of an illustrious future. But while Hamilton was leading the reflective life of a student, and meditating beneath the shadow of the trees, imbued perhaps with the "prophetic soul of the wide world, dreaming of things to come," a great revolution was swiftly coming to its crisis about him.

Successful men are those who take advantage of their opportunities, for opportunities are not made by men but for them. Hamilton, we may be sure, would have taken full advantage of any and every opportunity, but he had the good fortune to have a great one opened to him. The question was which side in the gathering conflict he would espouse. It seemed perhaps more difficult to Hamilton to decide then than it does to us to decide for him now; and yet his choice was simple and his selection inevitable. He was singularly free in making his decision. He was born, it is true, in a little English dependency and had always been a provincial, but he had no family in New York to warp or incumber him, his ties of friendship were new and probably as much with one side as the other, and he was to all intents and pur-

poses his own master. A visit in the spring of 1774 to Boston, the hot-bed of resistance to England and possessing an atmosphere very different from that of New York, where the Tories were in the ascendant, probably affected him not a little, and led him to a close examination of the all-absorbing controversy. He himself tells us that he had formed "strong prejudices on the ministerial side until he became convinced by the superior force of the arguments in favor of the colonial claims." This explanation is exceedingly characteristic and highly instructive. His masterful temper and innate love and respect for government, order, and strong rule dictated his prejudices. His clear, vigorous mind, and his profound belief in reasoning and argument, which so prevailed with him always, showed him plainly that the Colonies were in the right. But after every allowance for the conviction brought by reason, an instinctive sense of what must be the true path for him to follow undoubtedly played a large part in Hamilton's decision. He was young, unknown, an adventurer in a strange land, and burning with a lofty ambition. The world was before him, and his fortune, which he meant should be a great one, was to be made. Constituted authority and a continuity of government offered at best but little to the most successful

provincial. Change, revolution, and war might bring almost anything in the way of military or civic glory. He chose rightly, and he also chose wisely when he cast in his lot with the opponents of England.

New York was in possession of the Tories. The Assembly was ministerial, narrow-minded, and with a majority controlled by the home government. Upon this Assembly, in order to force New York into line with the other colonies now preparing for the first Congress, it was decided to bring what in these days would be called "pressure." With this purpose a great meeting in the fields was held on July 6, 1774, under the auspices of the patriot leaders. Hamilton was present listening to the orators. Like the boy Pitt under the gallery of the House of Commons, Hamilton was impressed by what was left unsaid far more than by all the rhetoric of the speakers. Filled with the belief that he could supply the omissions which he detected, he made his way to the platform and stood before the people. There were a few moments of youthful embarrassment and hesitation, while the crowd stared at the audacious boy, and then nature asserted itself and his words flowed unchecked. Hamilton was never eloquent in the sense in which Chatham or Mirabeau or Henry were eloquent, for he had

not the imaginative and poetical temperament. But he had the eloquence of sound reason and clear logic, combined with great power and lucidity of expression, and backed by a strong and passionate nature. As he poured out with all his young fervor thoughts long pent up in his breast, we can well believe that the crowd, murmuring "it is a collegian! it is a collegian!" were deeply stirred by the oratory of one who spoke so well, although he was a stranger and in appearance a mere boy.

Once embarked, Hamilton was too honorable, too high-minded, and too thoroughly satisfied of the soundness of his convictions ever to waver or turn back, and tempting offers from the other side at a later day, when his value and his powers were better known, passed idly by him. He was not only firm of purpose but having taken his part he pushed on in every direction open to him with his accustomed zeal. In those days public opinion was formed and the power of the press exerted through pamphlets or by essays addressed to the printer, and published by him in his newspaper as communications. The ablest men of the country employed these channels to reach the public mind, and great importance was attached to such productions. Two tracts of considerable force assailing Congress and its measures, and

written by two of the ablest writers on the Tory side, appeared in the autumn of 1774. The effect of these pamphlets was severe to the patriots, and while they were casting about for a champion Hamilton answered the attack. The Tories replied, and Hamilton rejoined in a second pamphlet of some seventy-eight pages. Both these tracts, which showed marked ability, were variously attributed to the most eminent leaders, and when their authorship was known the young writer gained a wide and immediate reputation. To argue points of constitutional law and of political justice and expediency was above all things congenial to Hamilton with his already well-stored mind, acute logic, and capacity for discussion. The pamphlets were excellent of their kind at a time when such performances were strictly judged, and, taken in connection with the youth of the author, deserved the great success which they obtained. They gave Hamilton an assured position and led to the rejected offers from the Tories to which allusion has just been made.

The winter of 1775 passed away, New York was at last forced into the Congress, the battles came in Massachusetts, and revolution began. Meanwhile Hamilton continued his arguments against England in vigorous newspaper essays, took part in public meetings, and devoted his

time to a study of military affairs, seeking also for practical experience by joining a volunteer corps commanded by Major Fleming. Besides showing nerve in the performance of some trying military duties which were becoming very necessary in those troublous times, Hamilton appeared prominently on several occasions in efforts to repress, by argument and by fearless exposure of himself, outbreaks of mob-violence. The most memorable of these occasions was one which happened during the disturbances caused by the British ship of war Asia opening fire on the town. Persons and property had been injured, and there was wild commotion and an angry rising of the people in New York. The king's store-house was pillaged, the Connecticut troops were sent for, and Liberty Boys rushed through the streets threatening outrage and ruin to every Tory. Most prominent among the adherents of the Crown was Dr. Cooper, president of the college, and thither the angry mob hurried, bent on mischief of a desperate sort. When they arrived they found Hamilton and his friend Troup on the steps of the building ready to delay their entrance. The former at once stepped forward and began to reason vigorously with the crowd, and to denounce their disorderly conduct. While Hamilton was thus engaged, and while the populace halted to listen with amazement, no doubt, to the eager

words of a youth whom they had last seen exposed to the fire of the Asia with other patriots occupied in removing cannon, the excellent Dr. Cooper fled, after warning the people from a high window not to be guided by such a madman as his former pupil who was then addressing them.

The doctor's mistake was natural enough. He could not believe that Hamilton, patriot and rebel, was resisting the people and restraining their violence for the sake of an old Tory clergyman. There is, indeed, something very surprising as well as very fine in the spectacle thus presented of a boy, whose blood was hot with the new strong wine of revolution, risking his life and what he loved probably much more, his influence and his popularity in behalf of law, order, and mercy. In a similar fashion he interfered to save the life of one Thurman from what was then known as "Travis's mob," and when the Connecticut horse broke into the town and carried off the types of Rivington, the Tory printer, Hamilton was filled with indignation at this violent suppression of opinion, and if he could have got a few men to go with him would have ridden after the marauders and recaptured the property. These instances of self-restraint and cool bravery are all very remarkable in so young and so enthusiastic a man as Hamilton. In the midst of revolution-

ary excitement he did not hesitate to come forward to check his own party, to oppose and censure their excesses, to take the side of the unpopular minority in behalf of mercy, justice, order, free speech, and a free press. But whether he succeeded or failed in these attempts they were creditable alike to his sense and courage; and show strongly his early and deep detestation of anything like disorder, and above all his hatred of that most noxious of all forms of confusion, a riotous city rabble.

But the time for preparation was closing fast. Early in 1776 the New York convention ordered a company of artillery to be raised. Hamilton applied for the command, and his examination quickly dispelled the doubts of his fitness in those who suspected mere youthful presumption. He recruited his company rapidly, and spent upon its equipment his second and last remittance from home. He had now burned his ships behind him. Youth, study, and the days of dreaming and meditation were gone. He was a man striving for everything that an ambitious man can desire. He had already entered upon the stage of life at an age when most boys were still in school or college, and a very exciting and bustling drama he found in progress. He had youth, health, great talent, a strong will, courage, ambition, and his sword. With these weapons his fortune was to be made.

CHAPTER II.

THE REVOLUTION.

THE artillery company quickly showed the talent of its commander. Hamilton devoted himself to it as he did to everything he undertook, and by unceasing drill soon made its evolutions conspicuous in an army where discipline was novel and models were rare. The young captain, by the excellence of his troop, attracted the attention of Greene, who fell into conversation with him, was impressed by his talent, and introduced him to Washington, thus putting him at this early day in the line of advancement. The kindness of the Rhode Island General was never forgotten by Hamilton, who became one of Greene's strongest supporters and warmest admirers, afterwards declaring him to have been the first soldier of the Revolution. Hamilton, however, was soon tested by a severer experience than any which drill or parade could offer. He won his spurs at the disastrous battle of Long Island, where with great coolness and courage he brought up the rear in the masterly retreat which saved the

army and gave the first conspicuous proof of that daring and sagacious genius for which Washington was as eminent in good as in evil fortune. With the rest of the army Hamilton took part in the retreat up the Hudson, distinguished himself by the admirable manner in which he served his battery at White Plains, and offered to recover by storm Fort Washington,—a piece of reckless daring to which Washington refused his consent. From New York Hamilton went with the army in their terrible march through New Jersey, and shared in the brilliant campaign of Trenton and Princeton. By this time, after six months of hard fighting, his company was reduced to twenty-five men, who retained their old discipline but little else. Their commander had, however, made a name as a dashing and gallant officer, and this, added to his literary reputation, led to his appointment as one of Washington's aides with the rank of Lieutenant-Colonel, on March 1, 1777, when he was barely twenty years old.

Hamilton acted wisely in accepting this new position, for which he was peculiarly fitted. He seems to have regarded the step with some misgiving, and to have felt that he had made a considerable sacrifice. His self-confidence, natural enough under the circumstances, was

then as always too strong; but in this instance he controlled it. Extraordinary success and the consciousness of great talents made it easy for a very young man to believe that if he remained in the line nothing was beyond his reach, and that no prospect was too brilliant for reasonable hope. Yet it is more than probable that if he had continued a line officer he would have attained no higher rank than that which he ultimately reached, while he would have sacrificed experiences and connections of inestimable value. With all his precocity and undoubted aptitude for military affairs, he was still too young to have obtained the highest commands before the end of the war, whereas, as a member of Washington's family, he was brought into close association with the greatest man of the age, whose friendship he was able to win and retain. As a member of the staff of the Commander-in-chief, Hamilton's duties were various and highly responsible. He did not have the independent command for which he sighed, but he was present at all the battles in which the army was engaged, took more or less part in them, and always gained honor and distinction. His principal occupation was in the conduct of Washington's immense correspondence. A large proportion of the endless letters, reports, and proclamations which issued from

headquarters, was the work of Hamilton. In regard to these documents there has been a very needless discussion. To claim for Hamilton the merit of all the correspondence which bears Washington's name but which is in the handwriting of his aide-de-camp, and to speak of it as if Hamilton was the man who directed the movements of armies and informed Congress of their duty, is absurd. Washington was fortunate in having on his staff one of the most brilliant men of the day, with a vigorous, original, and well-stored mind, fertile in thought, a lucid and acute reasoner, and a master of a clear and forcible style. We may be sure that nothing passed through Hamilton's hands without being put in the strongest and most condensed form, and at the same time amplified and adorned; but we may be equally sure that however much the General profited by the suggestions of his able secretary, the central ideas and guiding principles, whether conveyed in a word or dictated at length, were the intellectual property of the man who signed those letters and reports with the name of George Washington. The kernel of a letter may lie in a simple negative or affirmative, which when fully expressed will cover pages, but the author of the letter is he who directs the decisive "yes" or "no,' and not the man who clothes the thought in

fitting words. This in no sense implies detraction. It is a wrong to any man, be he great or small, to attribute to him something to which he is not entitled, and to present Hamilton, even in the most indirect way as the author of Washington's despatches, is merely to injure the former and neither to hurt nor help the latter. Hamilton's work as military secretary — and there is a great mass of it extant — deserves all praise, and greatly redounds to his credit. As his enthusiastic comrade, the gallant Laurens, said, he certainly held the pen of Junius in the American army, and to that gifted pen, employed as freely in another's service as in his own, and to the versatile and original mind of its possessor, Washington owed much and gave every proof that he appreciated the debt. For those interested in a close study of Hamilton's mind and character, the despatches which he wrote as secretary, as well as those which he composed in his individual capacity, are of great value. In them we can trace the rapid development of a keen and powerful intellect. There we can see displayed sagacity, foresight, acuteness, and force in every affair to which they relate, whether military or civil. There, too, we perceive the fertility of resource, the vigorous self-confidence, unhesitating decision, and undaunted spirit, which the young aide

afterwards made conspicuous on broader fields. All these qualities — and they form a goodly list — were moreover in a state of vigorous growth. There is nothing in Hamilton to suggest his namesake who bore the famous sobriquet of "single speech," who was content with one splendid effort and then silent forever. Hamilton's correspondence, on the contrary, during his service on Washington's staff, constantly improves. In this and in many other ways he shows that reserved force which is one of the most essential elements of greatness, and the capacity to gather increased strength, like Antæus, from each fresh contact with the earth of every-day events in a time of strain and trial.

The most important duty which fell to Hamilton while serving as an aide was his mission to Gates to seek reënforcements. At that moment additional troops were essential to Washington, and they were only to be obtained from the northern army. While Washington was bearing defeat, and fighting on with grim pertinacity, Gates, in command of an army formed from the hardy levies of the North, had achieved a signal victory which has taken a place among the dozen decisive battles of the world's history. The surrender of Burgoyne had made Gates — to whom as little was due for the victory as

could well be the case with the commanding officer — the idol of the North, and of New England especially. To offend Gates personally was a small matter, but to offend the northern colonies just then dissatisfied with Washington, would have been a very serious affair. As the superior officer of Gates, Washington had the right to command, and at the same time this was precisely what he wished to avoid. Hamilton was, therefore, to get the troops without using, except in the last resort, the imperative authority which he carried in his pocket. It was a delicate and difficult mission. Hamilton was never conspicuous for the patient and tolerant qualities which make a great diplomat, least of all, in the days of impetuous youth, and yet, thanks to his strong sense and clear perception of facts, he acquitted himself most admirably. Gates, naturally a weak man, was blinded by the glamour of his great victory. When the wishes of the Commander-in-chief were made known to him he held back, hesitated, and finally gave way. Hamilton got his troops by the exercise of much patient persistence, and kept the tempting letter of command out of sight. On his way back he also pushed forward the delaying Putnam, treating that General much more cavalierly than Gates, but only, it is to be feared

as the unmanageable temper of the old wolf-killer deserved. Hamilton won much credit, as well as the approbation of Washington, for his excellent behavior on this occasion. Not long afterward he was sent to Newport on a similar mission to the French, and again he showed himself a good envoy, although he failed to bring our allies to accede to Washington's wishes.

One other episode of Hamilton's career as an aide-de-camp deserves notice in any account of his life. His position brought him into close connection with the wretched attempt to betray West Point. It fell to him to see and strive to console Mrs. Arnold in the first agony of her distress after the flight of her traitor husband, and it was his lot also to be much with the gifted and ill-fated André. In letters to Miss Schuyler, his future wife, he depicted the scene with Mrs. Arnold; he described the whole unhappy affair and dwelt much upon André and upon his expiation of another's crime in which he had been but a tool. In all this there was deep pathos, and it acquires a fresh interest for the student of Hamilton's character as it shows the deep feeling and tenderness of his nature. No account of Arnold's treason and of the actors in it has ever equalled Hamilton's letters, which in their clear and forcible sentences

are full of a subdued eloquence, touching us and appealing to us even now by the emotion of a strong and reserved nature.

Such, in brief, were the salient events in Hamilton's experience of four years as a member of Washington's staff. But not the least striking incident of this period of his life was that which resulted in the sudden close of his service with the Commander-in-chief. We have Hamilton's own account of the affair written on February 18, 1781, two days after it happened. Washington had sent for Hamilton to come to him. The latter, delaying a few minutes in obeying, found the General at the head of the stairs, who reproved him with no undue sharpness, saying that to keep him waiting was a mark of disrespect. Whereupon Hamilton replied, "I am not conscious of it, sir; but since you have thought it, we part." One can hardly read this youthful ebullition even now without a smile. The fashion has prevailed of treating this quarrel as if the two participants stood upon equal ground, and this puts the whole matter on a thoroughly false footing. Let us look at the pair a moment as they stand there at the head of the stairs in the New Windsor house. One is a boy in years, although of wonderful and manly maturity of mind. He is a stranger in the land who has shown himself possessed

of great and promising talents; he has proved himself an able writer, a brave soldier, an excellent secretary. This small, slight, dark-eyed stripling is facing George Washington, and brimming over with a sense of offended dignity. Washington stands there in the prime of his middle age, large and imposing in personal appearance. He is one of the foremost men in the world, a great general and statesman, grave and impressive as becomes a man who has carried in his hands the life of a nation. Some of Hamilton's biographers have referred to this affair as one of Washington's outbursts of passion. Like all great men Washington had strong passions, like very few great men he had them under almost complete control. When they did break forth, as happened now and then in great stress of feeling, they bent everything before them, and there was a hush among those who listened. If Washington had spoken to Hamilton as he did to Lear about St. Clair's defeat, that fine reply, we are inclined to think, would not have been uttered. But deep waters are ruffled, not stirred by a passing breeze. Washington spoke to Hamilton in a tone of sharp, but proper reproof. Few generals, probably, would have spoken so courteously and gently to a young aide, who had kept them waiting and thus sinned against the first of

military virtues, prompt obedience. The event in itself is trivial enough. We smile at Hamilton's dignity and at his youthful satisfaction with his own conduct; but Washington's behavior, then and subsequently, is not without importance. He not only endeavored at once to heal the breach, although Hamilton repelled his advances, but he continued to interest himself in his former aide, and suffered their friendship to undergo no diminution. There was more in this than the magnanimity, absolutely without flaw, which Washington always showed. It was a tribute to Hamilton's abilities from one of the best judges of men who ever lived. He saw Hamilton's capacity; he cared nothing for his little outburst, and he was determined to retain his hold upon one in whom he perceived the possibility of great service to the country at some future time. He did this, too, without advancing Hamilton over the heads of other men to the position which the latter felt he would have gained if he had not joined the staff.[1] Washington watched over his fortunes at Yorktown, where Hamilton had a command and obtained the perilous privilege of leading the assault upon one of the outworks of the enemy. The opportunity was not lost. At the head of his men Hamilton rushed with all his fiery impetuosity upon the British redoubt,

[1] See Appendix, Note B.

carried all before him and took the position in ten minutes, doing his work much more quickly than the French, to whom the other redoubt had been assigned. With this dashing exploit Hamilton's military career came to an end, and he soon after betook himself to the pursuits of civil life.

I have touched upon these incidents of Hamilton's army life because they throw a strong light upon his subsequent career, enable us to understand his course in aftertimes, and furnish the key to certain qualities which explain his thought and action. But there are other phases of mind and character suggested and exhibited by this eventful war period. Between his leaving the quiet college and the storm of the Yorktown redoubt, he was brought into close contact with many persons, and it thus becomes possible to study his capacity of dealing with other men a matter of the first importance for any success in active life, and especially for a public man. In his position in the army there was no opportunity for so young a man to win general popularity, but this was something which Hamilton never attained, and indeed never sought. His genius and achievements were not of the kind which appeal to the hearts and imagination of the people; he was too great a man ever to descend to the

arts of a demagogue, and he was too definite a man ever to have that vague popularity which hangs about some persons without any assignable reason. But, at the same time, Hamilton had an extraordinary power of making friends, and this comes out strongly in his army life. It was not merely that he won the respect of men of character and ability; any man of equal talents was sure to do that; but he gained the affectionate devotion of men of that sort, and attached them to him. He was evidently very attractive, and must have possessed a great charm of manners, address, and conversation. But the real secret was that he loved his friends, and so they loved him. We see this on every side. All his comrades on the staff and all the officers, young and old, who knew him and were not hostile to Washington, loved him, and were proud of his talents. The same was true of the young French officers, with whom he was much thrown on account of his perfect command of their language, a very rare accomplishment in the colonies. From Lafayette down they all liked Hamilton, and spoke to him and about him with all the quick enthusiasm and lively affection of their race. In all this we see the germs of the power which afterwards gave Hamilton a personal following, much smaller than that of many of our

party leaders, but in proportion to its numbers unequalled in our history for character, ability, and devotion combined.

Another question which grows out of this period is that of Hamilton's military ability. Whatever he did in the war of the Revolution was well done, but a large part of his service was rather political and diplomatic than military, and he was too young to have the largest opportunities. He proved himself a soldier of courage, dash, and coolness; he showed that he had both nerve and foresight, all very essential qualities, but he had no chance to show more than this. He certainly believed that he had in him the making of a great general, and his military temperament and aptitude for military affairs go far to confirm this belief. If he had had the opportunity it may be safely said that he would have been a distinguished general, but whether he would have been a great one must necessarily remain a matter of mere conjecture.

But whatever his talents for war may have been, the ruling passion was that of a statesman, and even in the midst of the hardships of the camp and field nothing could repress Hamilton's strong natural bent. Neither physical discomfort nor visions of military glory could keep him from meditating on questions of government and finance. At the beginning of

1780, being then just twenty-three years old, he addressed an anonymous letter to Robert Morris on the financial affairs of the confederacy, at that time in their worst state, and threatening far more than the British armies to bring the Revolution to an untimely end. The paper begins with a careful consideration of the condition of the nearly worthless currency and the causes of its depreciation. It all looks very simple as we read it now, but at that time political economy was unknown, the modern systems of financiering were unheard of, and the true causes of financial phenomena were still hidden. Away from such books and authorities as there were, and relying on his memory for his facts, Hamilton gives an analysis and explanation of the depreciation of the currency admirable in its clearness and soundness, thoroughly modern in reasoning, and conclusive in argument. Young as he was he allowed with singular penetration for the part which the imagination plays in all such matters as credit and currency, and reckoned on it as a factor with great exactness. This little essay on inflated and depreciated currency is as valuable to-day as when it was written a century ago, and proves beyond question an inborn genius for finance, showing its author indeed to be entitled to stand with Turgot and Pitt

as a pioneer in what has since become the most important department of practical government. This remarkable essay was only preliminary. The youthful aide-de-camp had his remedy outlined in his head and ready for execution. He proposed to meet existing difficulties by gradual contraction, a tax in kind, and a foreign loan, which last was to form the basis of a national bank. The great purpose of the bank, and indeed the pith of Hamilton's scheme, was to unite the interests of the moneyed classes in the support of the government credit. The bank was to be a great trading and banking corporation in private hands, but backed and partly controlled by the government to which it was to be under certain obligations. The details were carefully worked out, but the leading ideas suffice to show the grasp of Hamilton's mind and the germs of his future policy.

A few months later Hamilton addressed a letter to James Duane, then a member of Congress from New York, on the subject of the government. A large part of this document is devoted to the army, then in sorry plight, owing to the inefficiency of Congress and the ill-adjusted relations of the States. The root of the evil Hamilton finds in the weakness of the central government, and the jarring and independent powers of the States. He urges

stronger government, single men at the heads of departments, and the absolute control by Congress of certain functions, such as making treaties, controlling the army and navy, and the like. To bring these things to pass, he says that Congress must either resume the discretionary powers which it exercised at the outset and then suffered to decline, or else a convention must be called to form a new, strong, and well-defined central government. Neither scheme was possible at that time, and the second, which was soon of course to be the true remedy, was at that moment of war and confusion more impracticable even than the first. The letter concludes with an outline of the bank as the best method of dealing with the most crying evils. The whole paper is strongly centralizing in tone especially for that time, although Hamilton had not then got beyond thinking that Senates were liable to become dangerously aristocratic.

A month later he writes a brief letter to the New York patriot, Isaac Sears, in which he sums up the results of his reflections as follows: —

"We must have a government with more power. We must have a tax in kind. We must have a foreign loan. We must have a bank on the true principles of a bank. We must have an Administration distinct from Congress, and in the hands of single men under

their orders. We must above all things have an army for the war, and an establishment that will interest the officers in the service."

Six months afterwards, in the spring of 1781, to Robert Morris, then at the head of the finances, he writes again, setting forth his scheme for a national bank with all the additions and improvements obtained by a year's reflection.

These letters are all interesting, not merely because they display Hamilton's talents in the strongest way, and show the breadth and scope of his mind, but because they exhibit in the clearest light the constructive character of his intellect. He was not only thinking like everybody else how the war could be brought to a successful conclusion, and present difficulties conquered, but also how a new system could be built up on the ruins of the old fabric of society and government. His time had not come, the world about him was occupied as it always is with the immediate exigency; it had not even finished the work of destruction, and was very far from having cleared the ground and made up its mind to build again. Hamilton's ideas, as those of far-seeing and brilliant men are apt to be, were a little before their time. But people were coming nearer to them every day, and in a few years just such a man would

be needed. The beginning was indeed close at hand, for Hamilton went from the army almost at once to a stage where he had opportunity for his first experiments, and could learn in a hard school the immense task which lay before him of converting his theories into practice and turning his schemes into realities.

CHAPTER III.

LAW AND POLITICS.

In the midst of the war Hamilton had found time to fall in love. On his mission to Gates he met at Albany Miss Elizabeth Schuyler. The acquaintance thus begun was renewed in the following spring, and then ripened into an engagement. Late in the same year, on December 14, 1780, he was married. This was in every way a most fortunate event for Hamilton. He not only won a most charming and intelligent woman for his wife, but he allied himself with a family rich, well known, and of the best position in the community. His father-in-law, General Schuyler, a brave, generous, honest gentleman, was universally beloved and respected, and thus Hamilton secured the firm anchorage which his wandering fortunes needed. He was no longer an isolated stranger, as much at home in one state or city as in another, but a member of a strong family deeply rooted in their ancestral soil. On the other hand, Hamilton brought to this respectable and important Dutch family not only the

society of an attractive man but the rising fortunes of one whose brilliant talents, had, as everybody could divine, a great destiny. Certain it is, that he was most warmly received by his wife's family, and the wide connection thus formed by marriage was soon held by the much stronger tie of personal friendship.

But whatever else Hamilton brought his wife, worldly goods were not among his possessions. Love of money was never one of his qualities, and he had an abiding confidence in his own capacity to earn at any time as much as he needed, so that at the close of the war he found himself with a wife and child and no resources except his arrears of pay and his own abilities. He steadfastly refused General Schuyler's generous offers of assistance, and betook himself at once to a study of the law, the profession by which he intended to get both fame and bread and butter. At the conclusion of a few months' study, early in the summer of 1782, he was admitted to the bar. His preparation was hasty, and his knowledge, when he came to the bar, must have been exceedingly imperfect, but with his intensity of application and readiness of mind, he had undoubtedly gathered in that short time a good deal of legal learning; and, what was far more to the purpose, it was not an undigested mass

of information, but was thoroughly systematized and arranged. Everything that Hamilton had in his mind, everything, certainly, to which he gave his attention, took the shape of argumentative statement. All his serious ideas fell naturally into the forms of logic, and with a little effort he could throw his thoughts on any subject into numbered paragraphs, and make them assume the guise of a concise brief. In a word, Hamilton had, above all things, a classifying and logical mind. His hasty legal studies came, of course, within the operation of this rule of mental action. As fast as he acquired his knowledge of law, it fell into well-defined form and system, so that when he was admitted to the bar all he had learned was compactly stated, and neatly arranged in a little manual, which was found in manuscript by those who came after him, and which, as we are told, did good service to others whose minds did not have a clarifying effect upon everything that was poured into them.

But while Hamilton was studying law, and even before he left the army, others, conscious of his talents and feeling that he deserved well of his country, had pressed him forward for public office. He could have been a commissioner of the French loan, but, always generous, he gave way in order that his friend Laurens

might go to Europe and rejoin his father, fresh from imprisonment in the Tower. His name was brought forward and talked about in connection with the Peace Commission; and finally in June, 1782, Robert Morris, who appreciated Hamilton's abilities, appointed him Continental Receiver of Taxes for New York. Vested with his new authority, Hamilton betook himself to Poughkeepsie, where the legislature was sitting, and where his restless spirit soon became apparent. First came a set of resolutions demanding a new convention and a better union of the States. This the legislature was induced to pass. Next followed a clear and scientific plan of taxation to replace the impotent and chaotic system then existing, but this the legislature would not adopt. Then appeared an address to the public creditors, letters to the governor, pertinacious applications to all branches of the government, and all members of it, and vigorous efforts to obtain for the central government the tardy and sorely needed supplies. The results of all this zealous work were pitiful. Hamilton squeezed out a few thousand pounds, and with these and his resolutions in favor of a new convention of the States, he was fain to be content. His activity bore fruit, however, in another direction. The acquaintance he made and the impression he produced

resulted in his election by the legislature as a member of Congress, in which once brilliant but now feeble body he took his seat in November, 1782, having resigned his receivership a month before.

When Hamilton entered Congress, it had fallen far below that predecessor of 1774–75 which extorted the applause of Europe, and which probably had a higher average of ability than any legislative body of equal numbers of which anything is known. It had not, however, in 1782 reached that condition of utter decrepitude into which it subsequently sank, nor did it, as yet, enjoy the full measure of that popular contempt which subsequently became its portion. It still had among its members men of ability and force. Conspicuous among them was Madison, young, but prudent, sagacious and acute, warped somewhat by his Virginian notions, yet, withal, a statesman of a high order, and second in talent to Hamilton alone. There are a few others, such as Wilson, Clymer, Bland, Higginson, and Witherspoon, men of reputation, sense, and ability, who stand out from the crowd, but most of the members, although well-meaning, were wholly commonplace and totally unable to deal with the grave problems which confronted them. The difficulties of the situation were, in truth, im-

mense. It was a time of social and political chaos, of broken promises and unfulfilled hopes. The storms of war had at least filled the sails, but they had now ceased to blow, and the ship of state was lurching terribly in the heavy sea, and threatening at every moment to go to pieces. Hamilton had entered upon a broader field, but he found the same disheartening obstacles which he had encountered in New York increased in Congress thirteen-fold, and to be overcome by a legislature which was utterly powerless. Young, enthusiastic, and full of ideas, he flung himself manfully into the struggle. He made himself deeply felt at once, produced such an impression that he was talked of as fitted for several of the most important offices, and left the stamp of his clear and powerful intellect on everything Congress attempted to do. But it was all in vain. His most desperate efforts were fruitless; for bad as things were, the condition of the times was such that they could not get better until they had become much worse. Let us glance for a moment at the various tasks to which he put his hand, as they come before us inextricably interwoven in this year of his public service. They will serve to show the persistent energy and strong sense of the man, and the evil days on which he fell at the opening of his career of political action.

Just as Hamilton was entering Congress Franklin was engaged in the diplomatic campaign which ended in such a signal triumph for the American envoys. When the issue of the negotiations became known in this country, there were plenty of men ready to abuse the astute old philosopher and his colleagues for violating their instructions in proceeding without the coöperation of France, and for agreeing to a secret Florida article with the British commissioners. The natural hatred of England had been balanced by a trust in France equally natural, but far more unreasonable. On this principle Congress, with what amounted to positive servility, and guided by the subtle Luzerne, had placed the negotiation within French control, and this was the command which the commissioners had boldly and wisely disobeyed. Hence the outcry from lovers of France and haters of England. Hamilton, with his keen insight and with the liberality of mind which assured him that the envoys could judge better than he could, was less extreme. Yet even he, although soon to be stigmatized as "British," felt so favorably toward France and so hostile to England, that he advocated a middle course, and introduced a resolution which, while it sustained and praised the envoys, provided, nevertheless, for the disclosure of the secret article

to the French minister. The signatures to the preliminaries of the general peace cut the controversy short, but even at their worst our foreign relations were simplicity itself compared to our domestic difficulties.

Finance was the great overwhelming trouble which laid bare the fatal vices of our political system, and it was upon financial rocks that the rickety Confederation was dashing itself to pieces. Our affairs in the way of debts and taxation were entering upon their last and worst phases at the beginning of 1783, when the patriotic Morris was resigning in disgust, and the young projector of national banks was new in Congress. These were of course questions highly attractive to Hamilton's genius, and therefore it was that upon them his most strenuous efforts were wasted while representing his State at Philadelphia. The first object was to obtain consent to the grant of an impost on imports. One State had not been heard from, but Rhode Island was the only one in active opposition, and to the conversion of this obstinate and selfish little community Hamilton addressed himself. He it was who led the debate in Congress, who obtained a committee to visit Rhode Island and argue with their government, and from his pen proceeded a forcible letter to the governor. Even while he was contending

with Rhode Island, Virginia receded from the agreement and the whole scheme fell through. Had it succeeded, it would, if the States had held to it, have furnished a permanent revenue, and hence Hamilton's zeal. Defeated at this point, Congress fell back on its old policy of recommending a grant for a term of years, and against this Hamilton and Higginson voted with the Rhode Islanders, who opposed all forms of taxation or debt-paying. Hamilton explains his course in a letter to Governor Clinton. He was not willing to lend his support to schemes of proved futility, or aid in the self-stultification of Congress, which progressed rapidly enough in any event. The fact was that there were very few adherents of what Hamilton calls "Continental politics," which favored strong, honest measures, and the funding of the public debt. To this the friends of the States made all possible opposition, and the result was helpless stagnation. The government had no resources, for the only one of any value, foreign loans, was nearly exhausted. Hamilton looked with absolute disgust upon this dogged refusal to pay the price of freedom, this stupid indifference to honor rapidly degraded by the practical disregard of all just claims, foreign and domestic.

But the blackest ingratitude and the dishonesty which touched Hamilton most nearly

was the treatment of the army, for Congress contemplated disbanding these gallant soldiers without even the pretence of providing for their long arrears of pay. Washington regarded with horror such an idea, and feared "most unhappy disturbances." Hamilton had a notion that the army might be used to threaten Congress sufficiently to induce them to make proper provision for all creditors, but Washington warned him that the army suspected that it was to be used for this purpose, merely to be thrown aside afterwards, and that it was a dangerous instrument to play with. Very soon this prediction of possible disaster from men with arms in their hands and smarting with a sense of wrong, came alarmingly near fulfilment, and failed only through the influence of Washington himself. The army at Newburgh was in a perilous condition, and the famous Newburgh addresses show what might have happened if Washington had chosen to put himself at the head of the ill-used troops. But Washington not merely refrained from uttering the fatal word of ambition; he threw himself into the breach, checked the whole movement, and quelled so far as was possible the rising and dangerous discontent. We hardly appreciate that at Newburgh Washington rendered one of his greatest services. He did not put aside the crown, like

the Cæsar of Shakespeare, but the idea of sovereignty never even entered his thoughts, never for an instant darkened the unrivalled purity of his utter unselfishness and single-mindedness. A word from him, and the star of the Revolution might easily have gone down in military rebellion, and military despotism coming suddenly upon an exhausted and divided country. But all this Washington checked, and the only outcome of the discontents was a mutiny of some new levies near Philadelphia. Even these mutineers, however, frightened the feeble government, and produced a sharp controversy with the Pennsylvanian authorities, because they failed to call out the militia for the protection of Congress, who thereupon employed Hamilton's vigorous pen to castigate the lukewarm State. In all these troubles Hamilton manfully took the part of the army, and acted with the Commander-in-chief. He drew resolutions of thanks to Washington, which Congress readily adopted, for they were always generous of fine words and empty phrases, but the army got nothing. They were sent unpaid to their homes, taking their arms with them as tokens of the gratitude of their country. Hamilton urged the maintenance of a force which should furnish the basis for future armies if they were needed, but Congress cut

it down to the lowest point, retaining only some eighty dangerous mercenaries in the national service. Defeated at all points, Hamilton strove to have the debates made public and the sessions open, hoping in this way to exert the pressure of public opinion, but he was once more flouted and voted down.

In the summer of 1783 Hamilton's term expired, and he withdrew to private life and to the practice of his profession. His congressional service had been a complete failure, so far as results were concerned. Even his iron energy of purpose had dashed itself in vain against the popular demoralization and indifference. The times were not yet ripe for the work he had to do. But although he failed to accomplish anything for the good of the country, he extended his own reputation, and laid fast hold of a position which was sure to make him a leader in the future party of reconstruction. A letter from McHenry, written in October, 1783, gives in clumsy phrase a very exact idea of the effect produced by Hamilton in Congress. McHenry says: —

"The homilies you delivered in Congress are still recollected with pleasure. The impressions they made are in favor of your integrity; and no one but believes you a man of honor and republican principles. Were you ten years older and twenty thousand

pounds richer, there is no doubt but that you might obtain the suffrages of Congress for the highest office in their gift. You are supposed to possess various knowledge, useful, substantial, and ornamental. Your very grave, and your cautious, your men who measure others by the standard of their own creeping politics, think you sometimes intemperate but seldom visionary, and that were you to pursue your object with as much cold perseverance as you do with ardor and argument, you would become irresistible. In a word, if you could submit to spend a whole life in dissecting a fly, you would be, in their opinion, one of the greatest men in the world. Bold designs; measures calculated for their rapid execution; a wisdom that would convince from its own weight; a project that would surprise the people into greater happiness without giving them an opportunity to view it and reject it; are not adapted to a council composed of discordant elements, or a people who have thirteen heads, each of which pays superstitious adorations to inferior divinities."

Besides reputation, Hamilton, gained experience in Congress, and that of a kind which had a powerful influence on his opinions of politics and government. His mind was naturally conservative and order-loving, but he was also young and enthusiastic, and in the struggle with England he held very liberal views, was not only then as always a champion of constitutional liberty, but in the days when he thought

senates dangerously aristocratic, leaned strongly to democratic principles. These tendencies, developed by a war against oppression, were rudely nipped, first by the treatment of the gallant army of which he was a member, and still more by his experience in Congress. The natural impulses of his temperament once more asserted themselves in all their strength. In Congress or rather in the States which were there represented he saw thirteen pure representative democracies; some of an extreme type. The distinguishing qualities of these communities, and of the central government as well, were at that moment faction, jealousy, and discord, infirmity of purpose, feebleness in action, unblushing dishonesty in finance, black ingratitude toward the army, and the rapid acquisition of an ever-growing contempt on the part of the rest of mankind. The main difficulty lay clearly in the overgrown rights of thirteen independent and jarring States. Next to this came the inevitable disorganization and demoralization consequent upon revolution, which Hamilton saw plainly enough, but which he believed to be deeply aggravated by too great an extension of democratic principles. We can hardly wonder that, constituted as he was, his conservatism grew vigorously. From this period we may date the conception of that aristocratic republic

and strong government, which was to be so highly centralized that the obnoxious States of the confederacy would sink to mere provinces, and which found expression in the plan so eloquently presented by Hamilton to the convention of 1787. By the Congress of 1782–83 were planted, also, we may be sure, the germs of that deep distrust of democracy and democratic systems which attained so great a growth when it seemed to find in the French revolution such awful confirmation. The one year of Congress, utterly futile and barren as it seemed, had a deep effect upon Hamilton; that is, upon a man who was destined to leave a profound impression upon the history of his country, and who was to become the leader and type of a powerful school of political thought.

Hamilton's withdrawal from public office was by no means equivalent to separation from public affairs. Both as a lawyer in successful practice, and as a writer, he was a leader and mover of opinion in New York. One of the great troubles of the times was the popular attitude toward the Tories, or loyalists, and in New York the feeling was peculiarly bitter. There was an active determination to take vengeance on all who had sided with the crown and were now helpless, and this was done in utter violation not only of wise policy, of public morals,

and of the law of nations, but also in direct contravention of the treaty with England. Hamilton before leaving Congress had urged upon Governor Clinton the imperative duty of paying British debts, as provided by the treaty, and on his return to the bar he found himself at once engaged in a case growing out of these hostile feelings. The legislature had passed an act, known as the "Trespass Act," giving a right of action to those whose property had been occupied during the war by loyalists. Relying on this statute, a poor widow brought suit against a rich loyalist merchant who had occupied her property during the British ascendancy. All the sympathy and passion of the multitude were with the plaintiff, but Hamilton, with the fine disdain of popular clamor which always characterized him, took the brief for the defendant. In a masterly argument, elaborate, eloquent, and high-minded, he appealed to the pride of the court to do justice, regardless of everything else; he reviewed every point of his opponent's case; raised the question from the narrow ground of a wrongful statute and rested it on public morals, the laws of nations, and the sanctity of treaties. He gained his cause, the first and one of the greatest of the forensic triumphs which gave him so high a place at the American bar, and his

victory was the signal for a burst of legislative anger. The decision and the judges were denounced, but Hamilton had stemmed the tide, for the time at least, and, what was of far greater importance, had led the court to vindicate its honor and sense of justice.

Other violent and revengeful acts against the loyalists followed, and the disregard of treaty rights gave England a readily-taken excuse for refusing to carry out her share of the provisions for indemnity and for the surrender of the posts. Again Hamilton came forward in behalf of a wise, liberal, and true policy of amnesty and conciliation. Snatching time from his professional labors, he sent forth two vigorous and widely read pamphlets advocating all that was just and statesmanlike in dealings with the loyalists and in observance of treaties. He remained unrefuted. Certain ones among his enemies planned to challenge him successively until he should fall in a duel, but though they were ready to face his pistol, they could neither meet nor answer his arguments. They had the good sense to abandon this murderous scheme, and no challenge was sent, but the idea was a very pretty compliment to Hamilton's power as a writer.

In other directions Hamilton's ability and activity were equally manifest. He was one of

the founders and principal originators of a state bank, which was of good service, and cut off the land bank scheme of Chancellor Livingston, just then fascinating the very untrustworthy lawgivers of the State. In the formation of the society of the Cincinnati he took an active part, and was one of its best friends and guides in the tumult of attack with which it was received in that day of narrow views and ungrateful suspicion. Thus these years slipped away in busy usefulness, but Hamilton never lost sight of the necessary changes in the national system, watching, waiting, and striving, in company with the few leaders like Washington who thought "continentally," to create a proper public opinion and bring about a successful national movement.

4

CHAPTER IV.

THE CONSTITUTION.

1786-1789.

WHILE Hamilton was thus engaged in the pursuit of his profession, taking an active part in many matters of general importance, and laboring with a chosen few for the education of the people in the right direction, and for the establishment of a national party, public affairs were rapidly going from bad to worse. The people, who had won the admiration of Europe in their conduct of the opposition to England and in the war for independence, had now become an object of general contempt, and were very nearly at the lowest stage of degradation in the eyes of the world. Divided among themselves, with no army, no navy, no cohesion, floundering wilfully and helplessly in a sea of unpaid debts and broken promises, the States of the confederacy were bankrupt in money and reputation alike. The great powers looked on with gratification, each seeing a possible victim in America, and coveting a share of the

spoils. England, beaten in battle, and determined on revenge if not redress, held the western posts, kept the Indians in her control, and the borders in a state of terror and ferment; while by hostile proclamations and discriminating laws she sought to ruin the commerce of her former colonies and embroil them still further with each other. To France the Revolution had offered a splendid opportunity to gratify the passionate longing for revenge engendered by the terrible disasters inflicted by Pitt. The ministry and the court of Louis XVI. watched American affairs closely, and when the moment of assured victory seemed to have come, they gave us welcome aid. They intended to strike a terrible blow at England, and they did it. The fine gentlemen and gallant soldiers who came here came for vengeance. If we except Lafayette, nearly every one in France, from the king and his ministers down, were animated by policy and revenge. The sentimental sympathy of fashionable Paris would have done but little for us. Self-interest did a great deal. Having helped us most essentially, and having at the same time used us for her own purposes, France now aimed covertly to obtain control of her former allies, and even Spain insulted and defied us. The disintegration of the general government was spreading to the individual States.

The future State of Kentucky was breaking off from Virginia; Wyoming was a sharp thorn in the side of Pennsylvania; New York, at odds with Massachusetts, was still more deeply embroiled with the settlers of what was to be Vermont, and with New Hampshire. As the States in their selfishness and blindness trampled on the confederacy, they began to feel the effects of this conduct in these disorders within their own limits. The finances of every State, with hardly an exception, were utterly debauched. Fresh inflations of worthless currency were coupled with barbarous laws to enforce its circulation and compel its acceptance. Public bankruptcy was followed by personal and private distress, and then came stay-laws, and every sort of dishonest expedient in the so-called interest of the debtor class. In every State, too, were local leaders, like George Clinton and John Hancock, who saw in a strong central government a great diminution of their own consequence. They preferred being first in their villages to being second at Rome, and therefore headed, directed, and gave force to the ungovernable majority, and gained political prosperity from the evils of the time. The first sobering shock came from Massachusetts. In that State, one of the richest and strongest in the confederacy, the Shays rebellion broke

out, threatening courts and law with extinction. Hancock the popular hero had prudently resigned, and James Bowdoin, a man who thought "continentally," was left to crush the insurrection, and sacrifice his popularity in the service of the State. The whole affair was soon over, but it had its effect. The miserable fabric of the central government had tumbled at the stroke, and armed anarchy and rebellion looked terribly unpleasant, when men were brought face to face with them. They did more to arouse people to a sense of their desperate condition than all the brilliant reasoning of Hamilton or the great influence of Washington.

From Massachusetts, too, under the lead of Bowdoin, came the first effort for a better union in the form of instructions to her representatives to urge the necessity of a new convention upon Congress. But the representatives were chosen by the States-rights party, for in truth there was at that time no other, and they smothered the instructions, explaining their course at their leisure a twelvemonth later. The first attempt had failed, but had done its share of the work of drawing public attention to the true remedy and its necessity. The successful movement came from the commercial interests. Virginia and many other States were striving for a retaliatory agreement against

England, but nothing could be effected. New York was particularly selfish, and the neighboring States were beginning to open free ports and discriminate against New York and against each other. These warring and increasing jealousies were, of course, destroying our commerce and crippling the country. Virginia having made a commercial convention with Maryland, was struck with the idea that it would be a good plan to extend it to the other States, and in a burst of liberal feeling passed resolutions in January, 1786, calling for a convention at Annapolis, to consider the establishment of a uniform commercial system.

It is at this point that Hamilton's share in the formation of the constitution begins. In this limited and unpromising opening he saw a chance to bring about a convention with powers great enough to reorganize the government throughout, and save the sinking fortunes of the country. It was but a stepping-stone, and a small and slippery one at best, but, if properly used, the next stride might be to a gathering capable of extended and enduring work. With this great end in view, some of his friends and followers secured seats in the legislature, and while the Clintonians were magnifying their State and their leader and helping to plunge the wretched confederacy still deeper in the

slough of impotency, the little band of Continentalists "went their whole strength" on representation at Annapolis, and succeeded in obtaining the appointment of five commissioners, of whom Hamilton was one. After the fashion of that feeble and demoralized time, only two commissioners, Hamilton and Benson, went to Annapolis where they met the representatives of no more than four other States, such was the public indifference to anything of national importance. The little meeting could do nothing for commerce or anything else, but it was able to issue an address, calling another convention where the delegates should come with general powers, such as New Jersey had given in the present instance. This address was drafted by Hamilton, and after it had been toned down to suit the sensibilities of Virginia and of Edmund Randolph, governor thereof, it was sent out to the people. In simple and forcible terms it set forth the condition of the country, the evils and dangers which threatened it, and the grave need of a complete reorganization of the government. The little gathering at Annapolis had done its work, and played its part as a stepping-stone. It now remained to make the convention, which was to come, a success.

With this end in view Hamilton gained an

election to the legislature of New York, and at once assumed the lead of the forces opposed to the governor. He served on many important committees and took an influential part in all the business of the House. The dividing question was the grant of a permanent revenue to Congress. Here Hamilton had already been at work and had written and distributed an address to the people, denouncing the refusal of New York to comply with the request of Congress. The preceding legislature had granted the revenue, but under conditions which nullified the act. Congress had asked for an extra session to reconsider this action, and Clinton had refused. In January, 1787, the new legislature was obliged to meet the question. All reason and a great deal of ability besides Hamilton's were with the general government, but Clinton had the votes. After a hot debate, the governor obtained an approval of his course, and after a still more protracted struggle, in which Hamilton shone with the full lustre of eloquent argument, the grant of the impost was defeated. Clinton and his followers gave the finishing stroke to the confederacy, completed its wreck, and left the country to choose between anarchy and union on a new basis. They builded better than they knew.

But while Hamilton, with practical good

sense, was straining every nerve to sustain Congress and give the existing system, wretched as it was, another chance for life, he did not lose sight of the grand object which he had kept in view for years, and which had brought him to the New York legislature. In the course of the session his talents had been fully displayed, his personal attraction had been deeply felt, so that despite the hostile majority he carried through a resolution for the appointment of five delegates to the coming convention. The Senate cut down the number to three, and defeated a second resolution, which Hamilton carried in the House, to add two more. The election of delegates followed, and resulted in the choice of Chief Justice Yates, John Lansing, Jr., and Alexander Hamilton. Yates and Lansing were uncompromising Clintonians and States-rights men, who could be relied upon to vote against any form of improved federal government. The fact of their election is the best evidence of the odds which Hamilton had overcome in securing the resolution for their appointment. Notwithstanding the character of the delegates, Hamilton had won a decided victory in the very teeth of a compact majority by forcing New York to be represented in the convention.

On the 25th of May, 1787, the representa-

tives of nine States were assembled at Philadelphia, and the work of forming a new constitution began. It is no part of my purpose to enter into the history of that famous convention. Hamilton's great services to the cause of the union and the constitution were rendered before and after its meeting. From the day when he wrote from Washington's camp the letter to Duane, setting forth the scheme of a stronger government, he had never ceased to labor for that end. In every legislative body within his reach he had striven for resolutions commending that object. He it was who had seized with quick sagacity on the opening afforded at Annapolis and turned it to such good account. He had labored incessantly to form public opinion by essays in the newspapers, by addresses and speeches, while in private letters he kept up constant communication with those leaders who thought as he did and sought always to make converts where his words or his friendship could have weight. By great sacrifice of time and by strenuous exertions he had forced New York to appear at the convention, and had toiled to gain the approbation of Congress for the new enterprise. At last his thought and labor were near fruition. The convention which he had urged had met, he was himself a member, and yet he still stood alone, master only of

his own personal influence. In the decision of the momentous questions he was helpless, for the vote of New York was in the hands of his enemies and sure to be cast against him on every occasion. To have contested every position with his colleagues, and at every trial to have voted against his State, would only have impaired his standing and injured his cause. He, therefore, prudently refrained from the useless and unequal conflict, took comparatively little part in the debates on details of the constitution, and was absent a large part of the time from the convention. In conversation with the members he could persuade and counsel, and this he did; but he wisely decided to concentrate all his force in debate in one speech. For this purpose he selected at the beginning of the convention, after the various plans had been submitted, the general theme of a new government. Completely master of his subject, filled with a deep conviction of the solemnity of the occasion, he delivered a speech occupying five or six hours, described by Gouverneur Morris as the ablest and most impressive he ever heard, and embodying all the accumulated reflections of years. The brief remains to us, and in that bare outline can be readily traced the range and variety of the speech. He spoke of the gravity of the occasion, of the choice

possible to the convention; he reviewed the whole science and theory of government, and, with an overflowing abundance of illustration surveyed the whole domain of historic precedents; he showed our low condition, the evils of the existing system, and the resulting principles on which a new government should be founded. Delivered with all Hamilton's impressive energy, glowing with the ardor of the speaker, and expressed in language at once forcible and transparently clear, we may well believe that this speech had a profound effect.

In the course of his argument he read his own plan for the new government, carefully worked out and perfected. This plan, which discloses the essence of his opinions on government, followed in a general way the English system as did all others presented, including the one finally adopted. In after times Hamilton was severely reproached with having said that the British government was the "best model in existence." In 1787 this was a mere truism. However much the men of that day differed they were all agreed in despising and distrusting *a priori* constitutions and ideally perfect governments, fresh from the brains of visionary enthusiasts, such as sprang up rankly in the soil of the French revolution. The convention of 1787 was composed of very able pub

lic men of the English-speaking race. They took the system of free government with which they had been familiar, improved it, adapted it to the circumstances with which they had to deal, and put it into successful operation. Hamilton's plan, then, like the others, was on the British model, and it did not differ essentially in details from that finally adopted. But it embodied two ideas which were its cardinal features, and which went to the very heart of the whole matter. The republic of Hamilton was to be an aristocratic as distinguished from a democratic republic, and the power of the separate States was to be effectually crippled. The first object was attained by committing the choice of the President and Senators, who were to hold office during good behavior, to a class of the community qualified to vote by the possession of a certain amount of real property. The second was secured by giving to the President of the United States the appointment of the Governors of the various States, who were to have a veto on all state legislation. These provisions, as may be seen at a glance, involved the essential character of the government, and although purely republican, came much nearer to the British model than any other by their recognition of classes and of the political rights of property, while by the treatment of the States

a highly centralized national government was to supersede entirely the confederate form. In the congress of the confederation Hamilton had seen that all the difficulties arose from the too great power of the States, and further, as he believed, from the democratic form of their governments. With his usual bold decision, therefore, he struck at the root of the evils and struck hard. Many of the States-rights men in the convention dreaded too much democracy, when applied to the people of the United States collectively, but they were far from approving the vigorous ideas of Hamilton. The majority of the members undoubtedly favored a democratic system in the union, such as they were familiar with in their own States. Even those who believed with Hamilton, that in the best government there should be an infusion of aristocracy, had no disposition to risk what was then deemed the last chance for a respectable union, on a scheme which would be hopeless of acceptance. There can be no doubt that Hamilton, with his keen perceptions of existing facts, was perfectly aware that the leading principles of his plan stood no chance of adoption, either by the people or the convention. The aim of his great speech and of his draft of a constitution was to brace the minds of his fellow members, and to stimulate them to taking higher ground

than the majority of their constituents demanded. In this he succeeded. His eloquent reasoning, if it did not lead men to his own conclusions, at least raised their tone, enlightened many members, and brought them to a more advanced ground than they were at first prepared to take. This was all of great importance, and to work for such results was, in Hamilton's isolated position, his wisest course.

His message once delivered, he waited and watched, aiding quietly and effectively whenever he could, but not attempting to thrust himself forward, fettered as he was by the action of his own State. His colleagues, however, abandoned the convention, and at the close Hamilton, not shrinking from the responsibility of representing alone a State where opinions adverse to his own prevailed, once more took part in the debates and affixed his name and that of New York to the constitution. When the end was thus finally reached, he sprang once more to the front and gave free rein to all his activity and zeal. It was in this last decisive struggle, in securing the acceptance of the work of the convention, that Hamilton rendered his greatest services to the cause of the constitution, — services more important and more effective than those of any other one man at this last stage of what was in truth a great political revolution.

I have said that Hamilton had no expectation of the adoption of his own plan of government by the convention, but he none the less thoroughly believed in it. He thought it better and more enduring than the one actually adopted, and he never lost faith in its principles. Indeed, as the distrust of democracy disclosed in his plan by the proposition for an executive and Senate to be chosen by a qualified suffrage, grew and strengthened in the conflicts arising from the French revolution, Hamilton's confidence in his own theory deepened, and his faith in the existing constitution declined. But when the work was complete at Philadelphia, when he had put his name to the compromise which he had anticipated, and in which he rejoiced, he gave his loyal adherence to the new constitution and the new system. Had he been an agitator, or a sentimentalist of muddy morals and high purposes, a visionary and an idealist, he would have stood up and howled against this constitution, which was not what he wanted, and which fell so far short of his own standard. As he was none of these things, but a patriotic man of clear and practical mind, he knew that the first rule of successful and beneficial statesmanship was not to sulk because one cannot have just what one wants, but to take the best thing obtainable, and sus-

tain it to the uttermost. In the constitution, however imperfect he might think it, he saw a vast improvement and unlimited possibilities, and for the adoption and successful working of the constitution he prepared to labor with all his strength.

In the country at large, and in most of the States, there was a majority against the constitution, but there it was before them, and the people had to make their choice between that and anarchy. They did not see the alternative quite so plainly as we do now, but that they felt it is shown by the fact that while a large majority longed to say "No," a very narrow majority in eleven States did say "Yes." The choice thus forced upon the people by the submission of the constitution did away almost everywhere with the miserable indifference which had become the prevailing sentiment in regard to all things national. Parties began to spring up, the press teemed with controversial essays and letters, and more emphatic marks of interest, in the shape of rioting and burning in effigy, were not wanting.

New York was not the most important of the States, either in wealth or population. In these respects she was surpassed by Virginia, Massachusetts, and Pennsylvania, and her adhesion to the new scheme was considered much less

vital than theirs. But in geographical position, capable as she was of dividing New England from the middle and southern States, New York had great importance, and almost made up in this way what she lacked in wealth and population. Her assent to the new scheme thus became of great moment, and it was very difficult to gain. In New York party feeling had always run higher than elsewhere, and it was now extremely bitter. The opposition there to the new constitution was stronger, more compact, and better led, and had a more active, powerful, and unscrupulous chief than in any other State. In the city of New York a society was formed to resist the adoption of the constitution by the state convention; and there, very soon after its signature, a concerted attempt was made in the Clintonian interest to write down the new scheme in a series of connected and well-planned essays. This was a gage of battle which Hamilton was ready enough to take up. He asked nothing better than to debate the question before the tribunal of public opinion. The challenge was promptly accepted, and the reply came in the form of a letter signed "Publius," written in the cabin of a little vessel, as Hamilton was gliding quietly down the tranquil current of the Hudson River. The work thus begun extended over many weeks, a

new number appearing, as a rule, every three days. In the midst of the most pressing avocations, both public and professional, Hamilton always found a moment in which to turn his ready pen to the vindication of the constitution, so that the series might never be interrupted. In this great work he was much assisted by Madison and slightly by Jay, both of whom brought ability, training, and sound sense to the task. There has been some controversy as to the proportionate share of these eminent men in this undertaking, but the discussion is of little moment. The original conception was Hamilton's, he wrote considerably more than half the numbers, and to posterity "Publius" will always be Hamilton. This remarkable series of essays, famous as "The Federalist," is still the best exposition of the constitution apart from judicial interpretation. "The Federalist," throughout the length and breadth of the United States, did more than anything else that was either written or spoken to secure the adoption of the new scheme; but it was something more far-reaching than a timely and practical piece of argument. The countless pamphlets, essays, disquisitions, and letters which saw the light at the same time have disappeared. They have been consigned to the dust-heaps of history, and the waters of oblivion have

rolled over them. But the "Federalist" still stands. No one will deny that it is dry, and that it is not calculated to amuse an idle hour, but the "Novum Organum," the "Leviathan," the "Fragment on Government," are not easy reading, and yet they are intellectual possessions highly prized and not to be parted with. As an exposition of the meaning and purposes of the constitution, "The Federalist" is now and always will be cited on the bench and at the bar, by American commentators, and by all writers on constitutional law. As a treatise on the principles of federal government it still stands at the head, and has been turned to as an authority by the leading minds of Germany intent on the formation of the Germanic Empire. In a word, "The Federalist" marks an epoch in the development of free constitutional government, in the art of confederation, and in political thought. On these essays Hamilton's fame as a writer has always rested and must always rest, although many of his other political papers are of equal ability and force.

The immediate results of "The Federalist" were so important that its literary merits have been somewhat overlooked. These essays have, in fact, become so firmly imbedded in our political history that their place in our literature has been forgotten. The development of co-

lonial literature was rudely arrested by the troubles with England and by the conflict of the Revolution, when the intellectual force of the community was wholly absorbed by politics and war. After the peace, constitutional and political questions, and the struggle for material prosperity, engaged exclusively the mental energies of the people. The result was that we had absolutely no literature except the literature of politics. This presented, of course, a very restricted field, and literature of this sort, that is, literature with an object and as a means to an end instead of one cultivated purely for its own sake, can never be of the highest order In this single branch, however, the standard was very high. The genius of the people in this direction was strong and keen, and their faculties had been sharpened still further by the long controversy with the mother country, in which the talent displayed by the arguments of the colonists upon constitutional points, and the ability of the American State papers had extorted the admiration of the leading minds of England. It may be safely said that in dealing with questions of politics and government the people of the United States were second to no other nation. When a man entered the arena of political discussion he not only encountered vigorous opponents and com-

petitors, but he appealed to a public whose judgment on these particular subjects was highly trained. In this literature the essays of "The Federalist" take the first place. They exhibit a wide range of information; their reasoning is strong, their style is simple, forcible, and clear; they were admirably adapted to their purpose, and above all they have endured, for they were a fresh and original contribution to human knowledge and to the best thought of the time. The conception of "The Federalist," and the lion's share of the essays, belong to Hamilton, and entitle him to the first place in the literature of the day. This is especially true if we take "The Federalist," in connection with his other writings in various forms and at different times, but always upon kindred topics. Hamilton has won in this way an important position in the literary history of America. It may be fairly said that his work takes the first rank in the only literature of the time. When it is remembered that he was also a busy lawyer, an active politician, and a great statesman, this is high praise, even if the literature in which he was foremost was nothing more than the literature of politics.

By the publication of the "Federalist," Hamilton rendered his first preëminent service to the adoption of the constitution; his second

was by securing the adhesion of New York. Clinton had failed to prevent the call of a state convention by the legislature, where the Federalists prevailed after a sharp struggle; but now that the last decisive conflict was upon him he gathered all his forces and prepared for battle. He triumphed without serious trouble in the election of delegates, and found himself master of forty-six out of sixty-five votes when the convention, which chose him to be their president, assembled. The Clintonian majority was led by Melancthon Smith, a keen debater and a man of ability, and by Yates and Lansing, Hamilton's colleagues at Philadelphia. The slender minority of nineteen was headed by Hamilton, ably supported by Jay and Livingston. "Two thirds of the convention and four sevenths of the people are against us," wrote Hamilton, as he surveyed the unpleasing prospect, anxious and grave, but full of courage. The outlook was in truth disheartening, but we may well imagine that Hamilton felt instinctively the coming victory, that he rejoiced like the strong man to run the race hopeless as it seemed, and that he prized the laurels to be won all the more on account of the odds which confronted him, and the hard fight which must oe fought. The first issue was on postponement. The Clintonians urged delay, in order

to see the experiment tried, to be guided by the other States, to examine further the scheme, and so on with all the excuses of procrastination. Their ground was shrewdly chosen, but the Federalists met the issue boldly, and when it came to a vote, even the devoted partisans of the Governor shrank from settling the momentous question by evasion, and postponement was defeated. Then the work of the Philadelphia convention was taken up, sharply debated, and minutely scrutinized in every clause and paragraph. Day after day Hamilton was on his feet upholding the cause of the constitution. Every opinion which he had expressed was turned and twisted into a weapon of personal attack, and he was constantly assailed as if he and the constitution were one. Defending and explaining his own position without weakening his cause, he debated every point and met his vigorous opponents in constant battle. No detail was too small to be dealt with, no flight was too distant for him to take. Filled with his subject, thoroughly familiar with all that could be said on both sides, he reasoned and pleaded, exhausting every resource of argument. When the constitution had been thus reviewed it could be seen how his work had told. The opposing forces faced each other for some days in complete inaction. The Clintonians, despite their

majority, dreaded to come to a direct vote, uncertain as to the precise effect of Hamilton's arguments. The Federalists, who had been fighting for time and knew that time was working with them, were in no haste to move. Nine States had ratified. The experiment would surely be tried, and presently came the news that Virginia had assented. The old policy of evasion was once more attempted by moving an adjournment and was again defeated. Then came a long string of amendments and a proposal for conditional ratification. Hamilton met this in a brilliant speech, and Melancthon Smith confessed that conditional ratification was absurd. The end was near. A short interval elapsed, and then Melancthon Smith admitted that he had been convinced by Hamilton, and that he should vote for the constitution. This was the signal for a break, and when the vote was taken the constitution had a majority of three in its favor. Bearing with him these joyful tidings Hamilton hastened to take his seat in Congress, to which he had been elected some months before despite a vindictive opposition on the part of the Governor.

This New York convention was an epoch in Hamilton's life. It so chanced that in the years which remained to him he had no opportunity after this time take part in a great debate. His

eloquence found vent repeatedly, of course, at the bar and in public meetings, but never again in convention or in Congress. Thus it happens that his legislative career closed when he was barely thirty, and yet he had attained the very first rank as a parliamentary orator. This fact is as rare as it is remarkable, for high position of this sort is usually the crown of a life spent in legislative debate. Hamilton's case is an almost solitary instance of a man's achieving this difficult reputation while the work which was to stamp him as one of the great legislators and statesmen of his country still lay before him. This sounds like mere panegyric, but a little consideration shows that it is only the simple truth. Hamilton's victory in securing New York came at a time when the land was filled with debate and discussion; when besides the national convention at Philadelphia there were twelve state conventions, and when all the talent of the nation was called into conspicuous action. That under such circumstances one state convention should be obscured is hardly to be wondered at, and thus the magnitude of Hamilton's success simply as an achievement of parliamentary skill and eloquence has been lost sight of. In New York the difficulties were greater than elsewhere. The hardest struggles in other States were in the two great

commonwealths of Massachusetts and Virginia. In the former, however, all the ability of the State was banded together to sustain the constitution; by skilful tactics Samuel Adams and John Hancock, the great leaders of the State-rights party, were disarmed and partially converted, so that those who confronted the Federalists in actual conflict were very inferior men. In Virginia the ability was pretty equally divided between the contending parties, but the opposition was much less stubborn and unreasonable than in New York or Massachusetts, while the Federalists had the inestimable advantage of Washington's enormous personal influence. In New York, if we exclude Hamilton, the preponderance of ability was with the Governor, who in political strength and management was a host in himself. The majority against the constitution was very large, carefully disciplined and counted, compact, and ably led. This majority Hamilton overcame by open debate. He changed votes by his untiring succession of brilliant speeches, and when party lines are drawn there is nothing so rare as such a feat in all the long records of parliamentary contests. He did this, too, in the midst of continued personal attacks, which he was compelled not only to ward off but to keep distinct from his cause. It is true that circumstances worked

with him, but this was part of his campaign; and that the pressure caused by the accession of other States was not necessarily decisive, is shown by the postponement of the question in North Carolina and the refusal to call a convention in Rhode Island. Any one familiar with legislative bodies and with parliamentary history can appreciate the meaning and weight of the confession wrung from the leader of the majority, when he admitted that he had been convinced by Hamilton on a question which had agitated the public mind for months and on which party feeling had run high. Tried by the severest test, that of winning votes, Hamilton's victory is of the highest rank in the annals of modern oratory.

That the new States were almost painfully deficient in nearly everything which gave refinement to the old world civilization, in art, in literature, in philosophy, in social splendor, cannot be doubted; but in politics, constitutions of government, and public law they were more advanced than any other people; and in capacity and skill in parliamentary debate and political controversy they were as well versed and as keen as their brethren of the House of Commons. In this field, therefore, Hamilton can be measured by standards as high as any then in existence, and can be compared with any of his

contemporaries on either side of the water His many speeches have perished; there were no short-hand reporters; he spoke extemporaneously from the stores of an overflowing mind, and only meagre outlines of arguments and striking sentences condensed to the last point remain. Yet it is not difficult to analyze the qualities which made Hamilton a great orator. Concerning the intrinsic merit of what he said, there is no need to go farther than the essays of the "Federalist," to learn that they were profound expositions of the principles of constitutional law and of the state of public affairs. In the same essays, or in any other of Hamilton's pamphlets or reports, we can also find that he set forth his ideas with wonderful clearness, directness, and force, often with intense compression, at times with a great variety of illustration. All these attributes avail much to clear men's minds of error and to convince them of truth. But behind the lucid reasoning and the nervous expression there must have been something more, some qualities which moved men's hearts. Inconceivable as it seems with such topics, we yet know from eye-witnesses that Hamilton moved his hearers to tears. What was it that could do this? To stir an indiscriminate crowd to tempests of grief or rage is not an uncommon power; to move to

deep emotion a legislative body, in this instance, of course, largely hostile and made up of picked men, is an extraordinary feat. From Hamilton's letters and essays, indeed, from everything he ever wrote, we know that he was not a man of strong or fertile imagination. He would never have pictured a coalition by describing the junction of the Rhone and Saone with a felicity of expression which was startling in its vivid exactness, or held his hearers breathless as he drew the fanciful retrospect of the aged Bathurst. In a period when tropes, metaphors, and images were fashionable, Hamilton dealt but little in them. With him thoughts and sentences are alike simple, strong, and straightforward, and these he used effectively and convincingly, not by delighting the imagination and beguiling the fancy but by communicating through his words, voice, and manner his own spirit. That he had pathos, sympathy, and depth of feeling, can be seen in the André letters, and these qualities did him good service; but that which led him to victory was the passionate energy of his nature, his absorption in his work, his contagious and persuasive enthusiasm. He rises before us from the past small in stature, but erect and graceful, and by the art of the chisel and the brush, we can see the firm, strong jaw, noble head, long, straight

nose, and most effective of all the dark, deep-set eyes. We can easily imagine how he looked, with his eyes glowing and flashing as he became excited, and how his full melodious voice rang out, compelling the attention of all who listened.

Hamilton's speeches in the New York convention do not live on the lips of school-boys. They suffered from having been spoken in a small state convention at a time when eleven other similar assemblies were held. They had none of the splendor which came to Pitt and Burke from their forum; none of the glitter of the gorgeous pageant which gathered in Westminster Hall to listen to the wrongs of the Begums; none of the national lustre which encircled Ames when he shook Congress with dread at the prospect of war with England, or Clay when he denounced the Essex junto, or Webster when he upheld the cause of the Union. Yet if we try Hamilton's speeches by the severest tests, by the conversion he wrought, by the sustained power, the readiness, fertility, and resource he displayed, and above all by results, this series of speeches in the New York convention deserves to rank with the highest triumphs of modern parliamentary oratory. This at least was the opinion of his contemporaries, both friends and foes. In the grand pro-

cession by which the Federalists of New York celebrated their victory, the federal frigate was named the "Hamilton," while the opponents of the constitution assailed him for using such consummate art in oratory that he blinded, hoodwinked, and misled his hearers, preventing their voting in accordance with their real convictions, so bewitched were they by the magic of his words. No greater compliment could have been paid him; and when his bitterest enemies ranked his eloquence so highly, posterity may fitly adjudge its place to be among the first.

The great battle had been fought and won, but much remained to be done. The demands of New York and Virginia for a new convention to amend the constitution must be evaded, and officers of the new government who were sound Federalists must be chosen. Hamilton carried through Congress the ordinance fixing the dates and the place for putting the new government in operation, and then turned his attention to New York. His reward was defeat for reëlection for the unexpired term of the old Congress. For Clinton, though beaten, held his men together in an extraordinary way, and with an unyielding grasp. The Federalists controlled the Senate, but Clinton had the House when the New York legislature assembled. The

result it was an obstinate dead-lock, and New York was unrepresented in the first electoral colleges, and had no Senators when the new Congress met. The state elections soon followed, and Hamilton flung himself heart and soul into the campaign. Yates was nominated by the Federalists, as a moderate man able to draw votes from the other side, and Hamilton supported him eagerly and eloquently with voice and pen in the newspapers and on the platform. This choice of a candidate was due to Hamilton, and it may well be doubted whether he would not have done better if he had nominated some steady Federalist. He would certainly have strengthened his party, but he was probably led to select Yates by the desire to win at all hazards. His hatred of Clinton probably blinded his judgment, which, whenever it went astray, was warped by the energy of his personal feelings. At all events the doughty Governor prevailed once more, despite the exertions of his enemies, but his power was broken. His majority was a very narrow one, and the legislature was in favor of the constitution. This gave the Senators to the Federalists, and by most desperate efforts they succeeded in choosing four of the six representatives in Congress.

The election of the Senators was marked by one of those errors into which Hamilton was

led on one or two memorable occasions by his imperious will and headstrong disposition. Up to this time the Livingstons, one of the ruling families in New York, had acted with and given powerful aid to the friends of the constitution. They cheerfully conceded one senatorship to Schuyler, but they and others like Morgan Lewis desired the other, as it is said, for some New York man of their faction, and they were especially opposed to King, whom Hamilton had settled upon as Schuyler's colleague.[1] Rufus King was an eminent and able man, but he had just come from Massachusetts, and could not in the nature of things have had any following of his own. Hamilton, nevertheless, persisted, and King was chosen. The result was a rupture with the Livingstons, which was the probable cause of the defeat of Schuyler two years later, and of the election of Burr. King was no doubt an abler man than any of his competitors, but the Livingston alliance was very important to the Federalists, and it was a blunder to throw it away. Hamilton had, in fact, no genius for management, and his besetting danger was in his desire to force things through, and in his impatience of delay or of concession, when dealing with other men. In this case his imprudence brought strength to

[1] Morgan Lewis to Hamilton, June 24, 1789, MS. letter.

Burr, and was the beginning of his many troubles in New York politics.

Meanwhile, the day had come, the eventful 4th of March fixed for the assembling of the new Congress. The evil habits of the old confederacy still clung to national affairs to such a degree that a quorum of both Houses was not obtained until April 6th. Then the votes were opened and counted, and George Washington was declared to be President by a unanimous vote, and John Adams, who had received the next highest number, obtained the Vice-Presidency. Washington and Adams on being informed of their election proceeded by slow stages to New York, where they were sworn in and the government was fairly organized. The great experiment was at last on trial.

CHAPTER V.

THE TREASURY AND THE FINANCIAL POLICY.

ALTHOUGH early spring saw the actual formation of the government of the United States, it was not until September 2d that the act passed establishing the Treasury Department. All eyes were turned to Hamilton as the man to fill this great office. Washington had already decided upon him, and Robert Morris had singled him out as the statesman suited above all others for the trying position which he himself had filled under the confederacy. Advisers were not wanting, tried friends and admirers, like Troup and Gouverneur Morris, who warned Hamilton of the trials he was about to encounter, and of the thorny path he must tread. They had reason enough on their side. Despite his politics, Hamilton, benefiting like other young patriots by the law excluding Tories from practice in the courts, had raised himself to a leading position at the bar, and had wealth and reputation within easy reach. All this quiet and assured prosperity must be sacrificed for a post beset with difficulties, of unceasing

toil, and with a paltry salary of thirty-five hundred dollars a year. There is, however, no indication that Hamilton wavered for a moment in his decision. He was convinced that he could render his best service to his country at the head of the Treasury, and he at once accepted the high office. It could not have been otherwise. His time had come, the great epoch of his life, and it was impossible to escape his destiny. He was only thirty-two years old, in the flower of his age and with the flush of youth upon him. The weapons which he had been forging for years hung at last complete and glittering before his eyes, and he was the last man to refuse to gird on the sword and draw it in the cause of good government.

Ten days after Hamilton's appointment Congress directed him to prepare a report upon the public credit, but this order, which led to the development of his whole financial policy, was only one of the many tasks allotted to him. It is not a little amusing to note how eagerly Congress, which had been ably and honestly struggling with the revenue, with commerce, and with a thousand details, fettered in all things by the awkwardness inherent in a legislative body, turned for relief to the new Secretary. They knew Hamilton's reputation and his perfect familiarity with theories of finance

and government, and they seem to have felt instinctively that he was a great minister of state with a well-defined policy for every exigency. In the course of a year he was asked to report, and did report, with full details, upon the raising, management, and collection of the revenue, including a scheme for revenue cutters; as to estimates of income and expenditure; as to the temporary regulation of the chaotic currency; as to navigation laws and the regulation of the coasting trade, after thorough consideration of a heap of undigested statistics; as to the post-office, for which he drafted a bill; as to the purchase of West Point; on the great question of public lands, and a uniform system of dealing with them, and upon all claims against the government. Rapidly and effectively the Secretary dealt with all these matters, besides drawing up as a voluntary suggestion a scheme for a judicial system. But in addition to all this multiplicity of business there were other matters, like the temporary regulation of the currency, requiring peremptory settlement. Money had to be found for the immediate and pressing wants of the new government before any system had been or could be adopted, and the only resources were the empty treasury and broken credit of the old confederacy. By one ingenious expedient or another, sometimes by pledg-

ing his own credit, Hamilton got together what was absolutely needful, and without a murmur conquered these petty troubles at the very time when he was elaborating and devising a far-reaching policy. Then the whole financial machine of the Treasury Department, and a system of accounting, demanded instant attention. These intricate problems were solved at once, the machine constructed, and the system of accounts devised and put in operation, and so well were these difficult tasks performed that they still subsist, developing and growing with the nation, but at bottom the original arrangements of Hamilton. These complicated questions, answered so rapidly and yet so accurately in the first weeks of confusion incident to the establishment of a new government, show a familiarity and preparation as well as a readiness of mind of a most unusual kind. Yet while Hamilton was engaged in all this bewildering work, he was evolving the great financial policy at once broad, comprehensive, and minute, and after the recess in January he laid his ground plan before Congress in his first report upon the public credit, a state paper which marks an era in American history, and by which the massive corner-stone from which the great structure of the federal government nas risen, was securely laid.

It was with this report that Hamilton entered upon the most important part of his career, and at the same time upon the period in which he impressed his individuality strongly upon the history and development of the United States. The first report on the public credit was not only the beginning of a remarkable financial scheme, which achieved a brilliant practical success, but with its successors which came quickly after it from the fertile mind at the head of the treasury, it carried out a far-reaching policy which affected, as it came to maturity, the character of the whole government, built up and welded together a powerful party, and founded a school of political thought which still endures and has always exercised a profound influence on our material growth and our political and constitutional system. Up to this time, great and valuable as Hamilton's services had been, they were simply those of a man of remarkable ability, having no peculiar mark about them. The intellect and personality of Hamilton have not left their stamp and superscription upon the constitution as it went from the Philadelphia convention, but upon the government, the public policy, the political system which grew up under the constitution, they made an indelible impression in those early and plastic years, and one which has never been effaced. In a word

when Hamilton sent in his report on the public credit in January, 1790, from being a distinguished man he became also a typical leader, and, most important of all, an essential element in our history.

To attempt to give an abstract of this report would be labor wasted. With all his lucidity of statement, Hamilton was always concise, especially in his communications to Congress, and to such a degree, that further condensation is out of the question. But to understand Hamilton and his influence as a great factor at the dawn of the history of the United States, it is sufficient to lay bare the main principles of his report. In these we can obtain the intent and significance of his policy, and then compare it with its results. After setting forth in general but striking terms the necessity of public credit, not merely as a means of raising money, but as an element of national greatness, and after dwelling on the need of the most rigid honor in all things connected with financial dealings, Hamilton states in a few curt sentences the objects to be attained. He says: —

"To justify and preserve the confidence of the most enlightened friends of good government; to promote the increasing respectability of the American name; to answer the calls of justice; to restore landed property to its due value; to furnish new re-

sources both to agriculture and commerce; *to cement more closely the union of the States;* to add to their security against foreign attack; *to establish public order on the basis of an upright and liberal policy;* — these are the great and invaluable ends to be secured by a proper and adequate provision, at the present period, for the support of public credit."

I have italicized the two sentences which seem to me to embody the most essential points of the whole policy. The cardinal doctrines of Hamilton, in questions of politics and government, were strength and order. The more intimate union of the States, effected by a common interest in the solvency and maintenance of a common government, was a sure instrument to promote strength. This was plain and is plainly stated, but the general expression, "to establish public order on the basis of an upright and liberal policy," covers, whether intentionally or not, a world of meaning, which finds explanation in the whole course of Hamilton's career and of his political thought. Public order usually is the condition precedent of sound finances. Here it is made the consequence. By the regulation of the finances, not only the strength of the government was to be increased, but public order was to be established. It was, in truth, the old idea which held a leading place in Hamilton's youthful scheme of a bank

of building up a strong party in support of the government. This was not merely to invigorate an existing political party or to evolve a new one, although such a result was incidental, important, and expected. Hamilton's scheme went farther, seeking to create a strong, and, so far as was possible and judicious, a permanent class all over the country, without regard to existing political affiliations, but bound to the government as a government by the strongest of all ties, immediate and personal pecuniary interest. The wisdom of this was obvious, when the object was to sustain a great experiment; yet at the same time Hamilton's purpose was not simply by the spread of a popular loan to unite a numerous body of men in the support of the government, but chiefly and mainly to bring to his side a class already in existence, that which controlled the capital of the country. The full intent of the policy was to array property on the side of the government. That once done, the experiment, Hamilton felt, would succeed, and its powers, moreover, might then be much extended. He had been unable to introduce a class influence into the constitution by limiting the suffrage for the President and Senate with a property qualification, but by his financial policy he could bind the existing class of wealthy men, compris-

ing at that day the aristocracy bequeathed by provincial times to the new system, and thus, if at all, assure to the property of the country the control of the government.

The method by which these great ends were to be reached, as well as the others, hardly less important, which are also set forth in the sentence quoted above, was by funding and consolidating all the debts of the United States incurred in the war or growing out of it. The most immediate practical gain which Hamilton promised himself in this was, that the funds would supply that deficiency of a circulating medium under which the country labored, and this point he argued at length and with great ability. He proposed several schemes for funding, comprising various forms of annuities and of payment in order to attract all classes of creditors. Into these financial details it is not necessary to enter. To fund the whole debt at the existing rates of interest, he believed to be beyond the power of the country at that moment, and in view of the great improvement to be effected, and the appreciation of the debt which had already taken place, he demanded present concessions from the creditors. To use a modern phrase, he offered long bonds at a low rate of interest, four per cent., and short bonds at six per cent. He proposed to pay two thirds

of the debt in the new funds, to bear interest at once, and the remainder in land, or in funds which should bear the same rates of interest at some future time. The propositions were honorable and practicable, and involved ultimate full payment, so that to creditors who had generally begun to regard their loans as hopelessly lost, they must have seemed positively brilliant. Hamilton further proposed a sinking fund, which was to be made up at the outset from a new loan of ten millions placed in the hands of commissioners for the purchase of certain classes of the debt, and for otherwise facilitating the financial operation of the government, and which was also to be the receptacle of all savings and surplus, and thus provide for the accumulation of the means necessary to meet and extinguish the debt as it became due. This was nothing more than the ordinary sinking fund, as it is used and understood at the present day, not only in all civilized governments, but in innumerable corporations. It was merely a means to provide for actual savings to be applied to the extinction of debt. But coming at a time when Pitt was using "sinking fund" as a term to conjure with, and by ingenious calculations of the rates of interest was perfecting a juggle which served to blind a whole generation of Englishmen, and which actually led them

to believe that debts could be extinguished, not by payment, but by further borrowing, this arrangement is interesting from its business-like simplicity and sense. There was nothing of Pitt's ingenuity about Hamilton's plan. To him the sinking fund was a convenient business device; nothing more. He had too keen a mind to be deceived himself, and he had no wish to confuse and befool others. His financial schemes were to be truthful and genuine, if nothing else, and he put forth his scheme of funding and sinking, not as the incantation of an enchanter, by which debts could be paid without saving, but as business-like arrangements by which honor could be restored, honesty and reputation retrieved, the nation strengthened, and the debt, so long as the necessary evil of its existence endured, become, by taking on a new form, a blessing instead of a curse to the business interests and moral tone of the whole country.

Such, in brief outline, were the objects at which Hamilton aimed, and the means by which he hoped to compass them. Nothing remained but to determine the subject-matter to be dealt with; and here came the crucial question of what constituted the debt of the United States. Few men questioned the value of the purposes set forth by Hamilton, for on

the surface, and, in most cases from any point of view, they commended themselves to the hearty support of all sensible men. There were few, too, who objected to Hamilton's mode of funding; although at a later time in his career and also since it has all passed into history, there has been some hostile criticism on this point, which I shall refer to again. But as to what constituted the debt, there were immediate, wide, and bitter differences of opinion resulting in the first great political struggle of the United States, and laying deep and solid foundations of party divisions. Hamilton divided the debt into three parts: the foreign debt, the domestic debt, and the debts of the States incurred in the cause of the union during the war of the Revolution. All these together amounted in round numbers to above eighty millions, — hardly more than Mr. Sherman recently saved in a twelvemonth in the interest account of the United States, but a very terrible sum in the year 1790. Every one was agreed about the foreign debt; every one was likewise agreed as to paying the domestic debt, but there were wide differences as to how and to whom this latter payment should be made. These two classes covered about fifty-four millions of the debt; and then came the state debts, amounting to twenty-five millions, very

unevenly distributed, bristling with opposing interests, the great bone of contention, and a subject of long and sore conflict. Thus the work was mapped out, and Hamilton concluded his report with estimates of ways and means, a scheme for raising revenue by duties on teas, wines, and spirits, and in the background a plan for an excise.

Before discussing the fate of this great report and its momentous political results, it is best to review briefly the other reports which followed close upon it, and were in reality parts of one comprehensive scheme. In this way the whole broad financial policy of Hamilton comes into view, and all the causes being thus understood and grouped together, it becomes far easier to appreciate the effects upon the country and upon its history.

The assumption of the state debts made an increase of revenue absolutely necessary, and at the close of the year 1790 Hamilton took the next step in perfecting his policy by sending to Congress his second report on the public credit, urging the establishment of an excise which he had already suggested, but which had been laid aside. Some additions he showed could be made to the duties imposed, but these were insufficient and it became necessary to raise revenue elsewhere. Hamilton's general theory was to have

as little direct taxation as possible, and to raise as much revenue from articles of luxury as was consistent with successful collection. Having carried the duties on imports as high as he felt they would bear, he turned naturally to the domestic manufacture of spirits as the best and most proper resource. No one now will question that by all the best principles of political economy Hamilton was right in his choice, and that he selected the most appropriate subject for taxation. The revenue being essential, this was the least burdensome way to raise it, and the subject was one which in its nature should always be taxed before anything else, and as heavily as it will bear. On economic principles, the excise on spirits suggested by Hamilton requires neither explanation nor defence. The real difficulty was political not economical. It was true that excises had been laid and collected by several of the States without objection. Hamilton in fact cited these precedents, but to the popular mind they were not precedents at all, for the people did not try taxation by the States according to the principles which they applied in judging of taxation by the general government. An excise laid by the States was like all other taxes; an excise laid by the general government met in the popular feeling the famous definition given to it by Dr.

Johnson. The attempt to raise an internal revenue had led to the Revolution. The government of England was external, and the consequent hatred of government of that description combined with States rights had proved the ruin of the confederation, and was the greatest menace to the new union. The old confederate government had laid, or had attempted to lay duties; the new government was formed for that purpose, and to the customs which everybody expected there was no objection. But although the right of the central government under the constitution to lay an excise was perfectly clear, it seemed to come from an external government; it was new and unexpected, and was calculated to rekindle the slumbering animosity against anything resembling external power, and to revive all the old jealousy of the States-rights party. All this Hamilton saw plainly enough. He endeavored to disarm opposition by a careful diminution of the hated powers of the officers of the excise, taking from them their usual summary jurisdiction and carefully limiting their right of search. But if he was cautious, he was also determined. Revenue was necessary, and an excise on spirits was the best resource from an economical point of view. Moreover, the Secretary was bent on vindicating the right of the government to collect an

internal revenue. It was an important assertion of power and one which ought to be at the command of the government, and which if once carried into successful practice would be another element of strength. It was part of the general scheme, economical and political; it was a bold and perhaps a perilous move leading to grave consequences, but Hamilton made it unflinchingly, and then turned all his energies to securing its successful operation.

The day after that which gave date to the excise report, saw the report on the national bank transmitted to the House of Representatives. This report embodied in an elaborated and perfected form the fruit of Hamilton's earliest meditations on finance in the dark days of the war. In a national bank he then saw the surest staff to aid the tottering steps of the young and struggling republic; and now in the plenitude of his power at the head of the treasury, and of a vigorous party, he turned to it as a fundamental element of a broad and national financial policy. The report was an elaborate essay on national banks with a full display of their advantages, forcible replies to all the anticipated and usual objections, and a clear but detailed plan of the bank which the Secretary wished Congress to establish. The late Earl of Beaconsfield announced, not long ago,

that it was necessary to educate his party; and in a similar fashion Hamilton began his report by confessing that he wished to educate the public, and that this must be his excuse for such a lengthy presentation of a subject so simple and so familiar to the "superior information" of the Congress he addressed. Putting ourselves, in the wisdom of our day and generation, on the same plane as that which Hamilton's friends in Congress occupied a century ago, we can lay aside the educational details and arguments on banks and banking. These same details and arguments are admirably arranged and most lucidly expressed; they were full of instruction then, it is not impossible that they might be of value in that way even to the present enlightened age, but still they are at bottom argumentative and instructive, and are far from easy reading. They do not help us particularly to appreciate the character, influence, and meaning in history of the man who wrote them down, so we may fairly dispense with them here, and confine ourselves to the great principles of the report as an essential part of a broad general scheme.

The plan of the bank was a good one, practical and successful; but that too is not of importance here. The bank was to have the support of the government, and the government was to have

the use of the funds, and to a certain extent and in a last resort the control of the bank. The objects to be attained were in the main the same as those aimed at by the funding system. The economical problem which confronted the United States was, how to develop their vast material resources. The difficulty lay in injured credit, both public and private, in lack of capital and circulating medium, and in the almost complete deficiency of the financial machinery necessary to the conduct of domestic trade and foreign commerce. In a national bank Hamilton perceived the means of restoring general confidence, so important to large and remunerative business transactions. In the issue of bank notes he saw a large addition to the circulating medium of the country, and a great expansion of credit. These notes would have all the strength imparted by the close alliance between the bank and the government, without the dangerous qualities inherent in irredeemable government paper. Facilities for exchange and for the transaction of business throughout the States, not merely for the government in the transmission of taxes, and in all its other dealings, but for individuals everywhere, would be promoted to a degree which we can hardly conceive without picturing to ourselves a community almost utterly destitute

of all the appliances by which the vast concerns of the business world are now kept in daily motion. All these great benefits flowing from the national bank were correct in theory and proved equally so in practice. They were all sought by Hamilton for the great purpose of advancing the development of the resources of the country, which, economically speaking, was the pole-star of his whole financial policy. They were intended to facilitate trade, encourage enterprise, enhance the value of land, and stimulate at once and as strongly as possible both agriculture and commerce.

In the bank, too, there was also a valuable engine for the performance of the financial work of the treasury and a fresh source of power and strength to the government. In the same manner as the funds the bank would create a class, or call forth one already in existence in support of the government. The stockholders of the bank would be even more united and more active than the holders of the funds because they would have more to gain. Then, too, in addition to this powerful body of allies, the government would find in the resources of the bank a great assistance in time of distress, and a uniform system of finance and of bank notes everywhere receivable would replace the chaos of thirteen jarring States, each with its

own banks issuing notes which were universally distrusted beyond their own borders. The power and purposes of a national bank were seen as plainly by Hamilton's opponents as by his friends, but its immense economical value and necessary usefulness prevailed. The policy of a national bank thus founded by Hamilton has never been permanently laid aside. When the charter of the first expired, the very party, and some of the very men even who had most fiercely resisted it, established another. A few years later, and the president of the national bank struggled with the President of the United States on not unequal terms, a curious verification of the power which Hamilton believed he should find in a bank, and of the possible danger of that power if arrayed against the government, as predicted by Hamilton's opponents. Then came an interregnum of state banks, and again difficulty and distress led to a return to Hamilton's policy. The system of national banks has replaced the Bank of the United States and its branches, doing away with the danger of extreme centralization in a single institution, which would be at the present time of perilous magnitude. But though the form has been thus wisely changed, the policy of national banking and the governing principles are still those laid down by Hamilton, and we live

now under the sound, wise policy in this respect which he devised and carried through nearly a century ago.

But there is another side still to Hamilton's plan of a national bank, which overshadows all its other purposes and results, important and far-reaching as they were. This was the constitutional side. The opposition denied the right of the government of the United States to erect a national bank, and Hamilton evoked the implied powers of the constitution to bring him victory. The struggle went into the cabinet, and Hamilton's argument not only satisfied Washington, but has carried conviction to a majority of the American people ever since. This argument on the constitutionality of the national bank, as a piece of legal reasoning, is the most important which Hamilton ever produced, not only in itself but because it can be tried by the highest possible standard. In McCulloch *v.* Maryland, Chief Justice Marshall went over precisely the same ground on the same question, deciding the point, as is well known, in Hamilton's favor. There are few arguments which will bear to be placed side by side with those of Marshall, but Hamilton's bears the comparison without suffering in the trial. The able and luminous decision of the Chief Justice adds nothing to the argument of

the Secretary and takes nothing from it, nor is the work of the latter inferior to the opinion of the judge in clearness and force of expression. I am far from meaning to imply by this that Hamilton was as a lawyer the equal of Marshall, who stands at the head of all lawyers, especially on constitutional questions. But it may be truly said, that a man who could in much haste produce an argument which can be placed beside an opinion of the great Chief Justice involving the very same question, is fairly entitled to stand in the front rank of lawyers and can be credited with the possession of legal talents of the highest order.

Interesting as this comparison is to the student of Hamilton's life and character, the historical weight and meaning of the argument lies in the calling into vigorous life the implied powers of the constitution. This great doctrine, embodying the principle of liberal construction, was the most formidable weapon in the armory of the constitution; and when Hamilton grasped it he knew, and his opponents felt, that here was something capable of conferring on the federal government powers of almost any extent. Beside the doctrine of the implied powers, all the other schemes of Hamilton to give strength to the new system, far reaching and striking as they were, sank into insignifi

cance. Hamilton did not shrink. Strength, order, and national force were his objects, and in the implied powers he could find everything that he needed, or that the government could need, provided his progress was not arrested. On the doctrine thus boldly laid down as to the bank, great parties have arisen and divided ever since, and a large part of our history, constitutional and political, has turned on the implied powers first seized by Hamilton. The growth of nationality, and the conversion of the agreement of thirteen States into the charter of a nation have been largely the development of the implied powers. This is the central point of Hamilton's whole policy, and in his bold declaration of the implied powers of the constitution he laid bare his one predominant purpose of building up a powerful national government.

In a little more than a month after the transmission of the report on the national bank, the indefatigable Secretary of the Treasury sent to Congress his report on the establishment of the mint. This was of course an integral part of his financial policy; but it was purely financial and had none of the wide political and constitutional importance which attaches to the other reports. This essay on coinage, for such it really was, shows all Hamilton's thorough

ness of treatment and clearness of thought and expression, applied to an intricate and difficult series of questions. The most interesting feature of the report to us lies in Hamilton's advocacy of a double standard. His argument was moderate in tone; he fully admitted the necessity of conforming in this matter to the practice of other countries and of the commercial world, and especially of England, with whom we had our largest dealings. He also frankly admitted the difficulties attendant on maintaining a proper ratio between the metals, so that one by being overvalued should not drive the other out. But after all deductions and with full allowance for all possible risks he comes clearly to the conclusion that in the long run greater steadiness is acquired by maintaining a double rather than a single standard, and that a better circulating medium, larger, more convenient, and less subject to dangerous fluctuations is thus attained. This principle was adopted at the time, and with a short interval has been the policy of our government ever since. We now depart from the views expressed by Hamilton with reference to a double standard by disregarding our relations on this point with our principal customers and by grossly overvaluing the inferior metal.

In discussing the subject of coinage Hamil-

ton advised the decimal system, with the dollar as a unit. He examined minutely the intricate details of alloy, gave a full plan for the working force and organization of a mint, and explained a careful scheme for coining and for the methods and charges of the government in this work. The report as a whole is of interest merely as showing Hamilton's knowledge and industry in every branch of finance, and the general soundness of his views, which in this instance have been in the main closely followed ever since.

Some months later, at the close of this same year 1791, Hamilton put the finishing touch to his financial policy by his report on manufactures, the most elaborate, and economically the most important of all his reports, and at the same time the most far-reaching politically. It rested on the implied powers of the constitution, and was intended to do more than anything else toward the development of the resources of the country, the purpose nearest Hamilton's heart, and toward rendering the nation as strong and independent materially as in all other ways.

That Hamilton looked for immediate results from his report on manufactures may well be doubted. He certainly knew that progress would be deliberate and growth slow in this

direction. But he wished to sow the seed, to prepare the way and lay down the lines to be followed, and so much he did. From Hamilton's report on manufactures have sprung the protectionist policy and the so-called "American" system of Clay. Hamilton was in his grave many years before protection was seriously taken up as a well-defined system, but when it came, stimulated it is true by the mistaken acts of his great opponent, it came, as he had foreseen it would come, and it succeeded as he had wished it to succeed. Upon the principles then laid down, and upon the policy then boldly sketched with a master hand, parties have divided and a great economical system has been built up. Even after a hasty examination we can see in this paper, better than anywhere else, the grasp, and at the same time the long reach of Hamilton's mind and thought. He was familiar with the science of political economy, then in its infancy, and with the writings of Adam Smith, the founder of that science, whom he admired and quoted, but whom he did not follow. The first pages of the report are occupied with a brief discussion of the comparative value of agriculture and commerce. The arguments of those who give unquestioned preference to the former are met and refuted, and the conclusion is that these

two pursuits are at least of equal value, that they serve each other, and that it is best that both should flourish. He then sets forth under seven heads the advantages to be gained from the establishment of manufactures: division of labor, extension of the use of machinery, additional employment to classes of the community not ordinarily engaged in business, promotion of immigration, greater scope for the diversity of talents and disposition which discriminate men from each other, a more ample and various field for enterprise, and the creation in some instances of a new, and in all of a more certain and steady demand for the surplus products of the soil. The first objection is, that a state thinly settled, with unbounded opportunities for agriculture, and able to buy manufactured articles from other nations, attains in this natural way the best and most profitable division of labor. To this Hamilton replies: "If the system of perfect liberty to industry and commerce were the prevailing system of nations, the arguments which dissuade a country in the predicament of the United States from the zealous pursuit of manufactures would doubtless have great force. . . . But the system which has been mentioned is far from characterizing the general policy of nations. The prevalent one has been regulated by an oppo-

site spirit. . . . In such a position of things the United States cannot exchange with Europe on equal terms. . . . Remarks of this kind are not made in the spirit of complaint. . . . It is for the United States to consider by what means they can render themselves least dependent on the combinations, right or wrong, of foreign policy."

The objection that industry if left to itself will find out the most useful and profitable employment, and therefore should not be forced by government, he meets by pointing out the strong influence of habit and of the spirit of imitation, including "the fear of want of success in untried enterprises, the intrinsic difficulties of first essays, and the bounties, premiums, and other artificial encouragements with which foreign nations second the exertions of their own citizens." He discusses this at length, taking substantially the same ground as Mill in his "Political Economy," that protection for nascent industries in order to remove the obstacles of starting is wise and proper. He then examines at length the practical difficulties of scarcity of hands, high wages, and want of capital, showing that the first two are exaggerated, and need not be seriously injurious, and that the third can be overcome by improved credit, the expansion of the circulating medium by the

funds, and through attracting foreign capital. To the objection that protection tends to create monopolies and benefit a class at the expense of the rest of the community, he replies first, that the increase of the price of commodities, even at the outset, is much exaggerated, and does not always occur; and second, that in the end the establishment of manufactures is a benefit and profit to all. The same reasoning applies to the objection, that one section of the country is aided at the expense of a loss to the other. In the aggregate and ultimately, all must benefit, and agriculture will probably be directly stimulated, as in the case of cotton, for which manufactories in the North will at once open a market. Then are shown the benefits to trade from diversity of pursuits and product; and lastly, the wealth, and above all the independence and security, to be gained by manufactures. In the vast territory of the United States almost everything can be produced, and in the successful establishment of manufactures Hamilton saw the road to an absolute independence far beyond the reach of foreign nations.

With patient detail all important articles of industry are examined separately, every small advantage or disadvantage weighed and pointed out, and every form of protection and governmental aid carefully discussed. In the latter

are included premiums on invention, and a patent system, while a strong plea is made in favor of assistance from the government in the construction of roads and bridges. Here Hamilton introduces the doctrine of internal improvements, destined to be for so long a time a subject of division; and for this, as for protection, he finds his constitutional authority in the theory of the implied powers, and in the broad expression of the right "to provide for the general welfare." His plan for the encouragement and establishment of manufactures was by a combination of bounties and protective duties, the surplus revenue of the latter to supply the funds for the former.

In the year 1791, with all nations protecting their manufactures, Hamilton was a protectionist, favoring the protection of nascent industries. At the present day, he would probably be foremost in urging a revision of the tariff and a gradual reduction of duties wherever it could be safely done. In other words, he would now be a moderate protectionist, as he was when he sent in his report, but not one of those who support a heavy duty in order to furnish to industries already firmly established a protection which accrues solely to the benefit of the manufacturers, and of no one else. The report on manufactures, as it stands, con-

tains the best and soundest argument, not on the general question of free trade and protection, but on that question as connected with the United States. "Most general theories, however," says Hamilton at the outset, with reference to free trade, "admit of numerous exceptions," and therefore he confines himself to the United States, and has little to do with abstract theory, except by way of respectful mention. Hamilton's report as an argument in favor of protection, must be tried solely with reference to the United States, under all the circumstances surrounding them, and with all their opportunities and possibilities. If it is put to this test, setting aside all its literary and scientific merits, it remains the best and most complete argument for a protective policy in the United States which we possess. No new and fundamental principle has been added to Hamilton's reasoning, but his report has been a welcome armory to generations of disputants, and is still waiting to be successfully answered and overthrown.

The report on manufactures completes the financial policy devised and carried through by Hamilton and the Federalists. During his official term he sent to Congress, of course, very many reports besides those which I have discussed; but in these four, indeed in three of

them, his policy in all essential points is embodied. From these reports came the funding system, the revenue system, the sinking fund, national banking, the currency, and the first enunciation of the protective policy. They carried with them the great doctrine of the implied powers of the constitution, and opened up the important question of internal improvements. So far as public policy could do it, they laid the foundation of the material prosperity of the United States. As Gouverneur Morris said, what was left of the Revolution grounded on finance, and so finance was the first all-absorbing and all-important question which confronted the new government of 1789. A successful financial policy meant the successful establishment of the new government. Behind all this lay the great constitutional doctrines which Hamilton raised up and defended, and the still greater political influence of his work. Hamilton was striving for a vigorous national life, and his chief object was to impart to the central government the greatest possible strength. He armed the government with credit and with a productive revenue; he won for it the hearty good-will of the business world; he gave it a potent ally in the national bank; by the funding system and the bank he drew out and welded together, with

the strong influence of pecuniary interest, a powerful class, which knew no state lines; and by his protective policy and internal improvements he aimed to create yet another vigorous body of supporters, and give the government still more strength and popularity. It was a great policy, the work of a master-mind looking far into the future. It was the foundation of a great party, and the corner-stone from which the federal government was built up. It only remains to trace its history and results, as it was gradually unfolded before Congress and the people, and became the central point of politics and parties.

CHAPTER VI.

THE RESULTS OF THE FINANCIAL POLICY.

THE publication of the first report on the public credit was awaited with intense eagerness. When it came, there was, of course, much excitement and a general rise in the securities of the bankrupt confederation. Eager speculators hurried over the country to buy up the debt, and the Secretary of the Treasury already began to be regarded as one who could make the fortune not only of the government but of individuals. Congress having decided that they would not listen to the perilous oratory of Hamilton, but confine him to writing, took up the report. As to the payment of the foreign debt, all were agreed, and that portion was adopted without discussion; but on the payment of the domestic debt a fierce conflict arose. The root of this opposition was in the old repudiating, disintegrating spirit of the confederation which still survived, and which found even plainer expression in resistance to Hamilton's proposition to pay the arrears of interest in the same way as all other indebtedness. No

one, however, was ready to take this stand against the domestic debt and advocate its absolute repudiation; perhaps, indeed, no one really desired such a proceeding in its fullest extent, although the old demoralization was really at the bottom of the hostility. The opposition sought to thwart the Secretary and maim his plans, on grounds in appearance more reasonable and certainly more likely to arouse popular sympathy. They found their opening in the speculation which had begun with the adoption of the constitution, and which reached a fever heat on the publication of the Secretary's report, when the certificates of debt had bounded up to high prices at a single jump. The obvious cry was against the greedy and successful speculator in possession of the certificates, which he had obtained for a song from the original holders. The "original holder" now figured as a patriot cruelly wronged, and in many instances he was a soldier, which gave an additional point to the lamentations in his behalf, raised generally by men who, under the old confederation, which still held their affections, had flouted with utter indifference all claims, both of soldier and patriotic lender.

But this inconsistency did not affect the value of the argument as a political cry. There was, too, some ground for it in many cases of

undoubted hardship. Hamilton and his friends freely admitted the force of this objection, but the Secretary argued that the great object was to restore the credit and good name of the United States, to do what was just in the majority of instances and to the greatest number, and he urged, in conclusion, that any other course was impracticable. His reasoning could not be answered, but it did not quell the conflict. One proposition was, in cases where the certificate was in the hands of a purchaser, to pay him only what he had himself paid the original holder. The violation of contracts thus involved was the fatal objection of Hamilton; but this plan carried with it, moreover, a very deep mark of the lurking desire to get out of debt by partial repudiation. To the surprise of every one, Madison came out in favor of discrimination; but he admitted that the certificates must be paid in full; and proposed a plan for a division between the original holder and the purchaser so hopelessly impracticable, that he could only muster thirteen votes in his support. Madison shrank from anything like dishonesty, but he was beginning to break from the friends of the constitution and from the party to which he naturally belonged, because he felt the drift of Virginian sentiment, and was not strong enough to withstand the press-

ure. In this struggle, the supporters of the Secretary, known as the Federalists, and hitherto acting merely as friends of the constitution, first gained real cohesion as a party devoted to a given policy. Their only opponent of ability was Madison, and his opposition was rendered abortive and impracticable by his honesty and logic. The debate was long and heated, but the Federalists, having ability, sound reason, and the advantage of position on their side, prevailed. They also carried through the payment of the arrears of interest. Only one point remained, and that was the crucial test, the assumption of the state debts. Much had been done before this point was reached. Even if Congress went no farther than they had already gone, the credit of the country was reasonably safe; but the policy of the Secretary would have been sadly mutilated. Public credit would not be rounded and complete; and, above all, the financial policy would have been deprived of much of its political and constitutional effects upon parties, upon the strength of the government, and upon the relations of the States. Sharp as the battle had been over discrimination in the payment of the domestic debt, it was a mere preliminary skirmish compared to the conflict upon assumption. The lines were clearly drawn, for Hamilton him

self had marked them out. Parties were marshalled now, not on the acceptance of the constitution, but as to the policy of the government created by the constitution; and on the question of assumption they faced each other for the first vigorous, well-defined, political contest in the history of the United States.

There was no need here to cast about for popular arguments, as in the case of the domestic debt, where the real grounds and objects of opposition were not clearly conceived, or were better hidden from view. There was an abundance of subsidiary and obvious arguments brought forward to the effect that too great a burden would be laid upon the people; that the state debts could not with justice be saddled upon the United States; that assumption was unfair in benefiting some States largely and not helping others, and among them some of the most deserving, at all. All these points were raised, and local feeling ran very high, particularly upon the last, leading to much angry recrimination and comparison of services in the Revolution. But after all was said, the most vigorous attack was against the chief purpose of the Secretary, the end which he here had in in view above all others of strengthening the national government by this large increase of its creditors, transferring the interest of a pow-

erful class from the States to the Union, and in this way binding the States closer together and weakening enormously the vigor of the State-rights sentiments. Politically it was a bold and masterly stroke, but Hamilton's opponents saw at what it aimed as plainly as he did himself. A loud cry went up against this centralizing movement. The anti-Federalists, with reviving dislike of the constitution, felt with sudden keenness the strength and pressure of the bonds which the minister of finance was drawing closer and closer about the people and the States, and they struggled desperately to get free.

Hamilton had foreseen this opposition, but he had reckoned on certain forces to sustain him, and he did not reckon in vain. His first ally was the enthusiasm aroused by his own policy; his second the confidence and interest of the capitalists and merchants; his third the direct pecuniary gain to certain States in the success of assumption; and his fourth and most important, the powerful body of able men in and out of Congress, who desired a strong central government, whose objects were the same as his own, and who had found in him a leader about whom they could gather in solid phalanx. These forces prevailed. After a long and heated conflict assumption was carried in

committee of the whole, but the majority, although compact and unyielding, was narrow. Delay served the opposition well. When the resolutions got out of committee and came up in the House, the members from North Carolina, at last in the union, had taken their seats, and they turned the scale against assumption. By their aid the resolution was recommitted, and the Federalists, determined to have all or nothing, sent the rest of the measures back with it. Again the party opposed to assumption prevailed, and the whole policy was at a stand. Feeling ran very high, and ugly murmurs of dissolution began to be heard. It looked as if the measures, destined above all others to consolidate the new union, would wreck it at the very start. Hamilton had summoned his spirits, and they had come to him. All the forces he had calculated upon had responded and done their work, but a new factor had been introduced and they could do no more. The dead-lock was as perilous as it was unforeseen, but the adverse majority was very small, only two votes, and Hamilton was not only determined but fertile in resources. He would not yield one jot of his financial policy, but he was perfectly ready to give up something else; and in the site of the new capital, the federal city, he found a suitable victim for the sacrifice.

This matter of the seat of government had excited great controversy and feeling between States and sections. Whether the future capital should be in New York or Pennsylvania, in Virginia or Maryland; whether this inestimable boon should fall to the North or to the South, was a burning question second only to assumption. Local prejudice and local pride were raised to white heat on this momentous issue. To Hamilton all this was supremely indifferent. Much of his strength and somewhat of his weakness as a public man came from the fact that, while he was purely and intensely national in opinion, and was devotedly attached to the United States, he was utterly devoid of local feeling and of state pride. There is no evidence that he cared one whit, except as a matter of mere abstract convenience, where Congress fixed the site of the federal city; but he was keenly alive to the fact that everybody about him cared a great deal, and whether reasonably or not was of no consequence. The party which favored assumption were, as a rule, on the side of a northern capital, and had prevailed. The party which resisted assumption favored a southern capital, and had been beaten To gain the necessary votes for assumption Hamilton determined to sacrifice what he justly thought was a perfectly trivial question, and

thus save the financial policy which he rightly considered to be of vital importance, and the very corner-stone of the new government. To carry out this scheme he needed the alliance of a southern leader, and he pitched upon the man fated to become his great opponent, — the leader and type of one school of thought and politics as Hamilton was himself the leader and type of the other.

Thomas Jefferson had just returned from France and taken his place at the head of Washington's cabinet. He came back with both body and brain dressed in the French fashion. His subtle, ingenious mind was full of the ideas of the French revolution, then beginning in Paris. But except for his belief in liberty and humanity, which was born with him and which he did not go to Paris to learn, the wild ravings of the Jacobin clubs, and the doctrines of Marat and Robespierre, were as little a part of the real man as his French clothes. He would use the ideas of French democracy so long as they were useful and a fit covering for his real purposes, and then he would lay them aside as he did his French coat when it was worn out. With his mind thus occupied Jefferson had come home to an America very different from the one he had left. A new government, with the inception and plan of which he had had but

little sympathy, had been constructed and the foundations of a strong state were already rising among the ruins of the old confederacy. He found a vigorous party, led for the most part by new men, arrayed in defence of a strong central government, and urging forward all measures calculated to invigorate it. Opposed to them were a body of men, numerous, it is true, but scattered and disorganized, with no possible party ground except resistance to the constitution and all its works. Jefferson, with his keen perceptions, saw at a glance the folly of opposition to the constitution; but as he surveyed the field on which he had just arrived it was by no means easy to determine what position to take. Nevertheless, while he waited and watched for developments, he had to do something, and that something, as was most natural, was to give his support to the administration of which he was a part, and to its measures, which then consisted of Hamilton's financial policy hanging in the balance on the decision of Congress as to assumption. Jefferson saw as plainly as anybody the scope of the financial policy and the intrinsic merit of assumption. He had, moreover, no prejudices at that time against the author of the policy. With no line marked out for his conduct, and ready, until events decided otherwise, to sus-

tain the administration, he fell in easily enough with the schemes of his colleague. There was a little talk, and a little dinner, and Hamilton agreed to secure votes for a southern capital, and Jefferson promised to do the same for assumption. It would be an error to treat this as a bargain or compromise between opposing factions, for it was the work of two cabinet ministers favoring the same policy. Hamilton gained success for his great plans. Jefferson by his personal influence helped to carry through the measures of the administration of which he was a member, and obtained in return the concession of the site of the capital, which was of value to him as a southern leader. In after times when Hamilton stood to Jefferson and his party as the representative of all that was bad, the memory of this transaction of 1790, and of a friendly alliance with the great Federalist, became troublesome. Jefferson would fain have erased from history the whole business. He wished the world to believe that the wicked, aristocratic, monarchical Federalists had always been his foes, and had found in him their mightiest opponent. Yet there was the ugly fact that he had himself turned the scale in favor of one of their fundamental measures. His manner of dealing with the problem was characteristic. He did not ex-

plain it away in his lifetime, for he might have met with awkward contradiction. But he set it all down for the benefit of posterity, and then excused himself for having supported a measure of the administration of which he was a member, and for having aided the accursed Federalists, by saying that he was "duped by Hamilton."

It is impossible to resist pausing over this statement, for it is one of the most amusing ever made even by Jefferson, and shows a confidence in the credulity of posterity which is not flattering. In justice to Jefferson it must be said that as long as he had made up his mind to get himself out of what he considered a scrape, this was the only excuse he could make. But it was, unluckily, a most clumsy and transparent deception. Thomas Jefferson had his weaknesses and his failings, but a lack of knowledge of human nature and human character was not among them. In the difficult art of understanding his fellow-men he was unrivalled, and he was never deceived by any man, unless by himself and as to his own motives. On the other hand, Hamilton was the very last man to succeed in duping others. It would be difficult to find anything more impossible to Hamilton than the feat attributed to him by his rival. He had a directness of thought and action

which was always remarkable, and at times overbearing and intolerant. It may well be doubted whether he could have successfully duped any one, even if he had tried, and he certainly had far too much sense to have attempted such an experiment on so unpromising a subject as Jefferson.

But we are indebted to Jefferson, and to his inability to let well alone, for the details of this whole matter, since the other side held their tongues. The Federalists were not, as a party, given to useless chatter, while Hamilton as usual went straight to his mark, called out unexpected resources, and said nothing about it. Congress took up the funding measures again, and the old angry wrangling went on even after a disagreeable consciousness that they were beaten in some unknown way had crept over the opposition. When the decisive moment came their fears were fully confirmed. The capital went to the Potomac and assumption was voted. The first great battle had now been fought in all its parts and the Secretary had won.

The plans for the revenue, for the excise, for the mint, were adopted in principle, and substantially as Hamilton advised. The Secretary's innocent suggestion that the image and symbols on the coins might be made to have an

educational bearing, led to a proposal to stamp on one side of the coins the head of the President for the time being. This harmless proposition produced a debate, amusing to us, but very earnest, heated, and real, a hundred years ago. The upshot of it all was the adoption of the head of Liberty for the coins, and the discussion has no value except as showing the state of public feeling. From this utterly insignificant controversy we see that when Hamilton sought to advance the cause of strong centralized government and of an aristocratic republic he was not crying in the wilderness. He appealed to clearly marked opinions, entertained by a body of men powerful by their talents if not by their numbers. On the other hand, there appears an immense amount of ill-defined sentiment cherished by a majority of the people, but in a party sense ill-regulated and incoherent, which turned longingly back toward the days of a shattered confederacy and sovereign States, which was thoroughly democratic, and looked with morbid suspicion on everything, no matter what, which tended to lend strength or dignity to the central government. It was this opposition which met Hamilton at every point, and which as it felt his strong hand drawing the bonds of federal and national government more and more tightly, detected aristocracy in

every public office and scented monarchy in the image and superscription of the coins; while among the party of the Secretary were to be found those who, with all their wise policy and high purposes, believed forms and titles essential not merely to dignity but to strength. The truth, as usual, lay somewhere between the extremes illustrated by the trifling symbols on which excessive partisans set a high price.

The next really great measure in the financial policy gave rise to a stubborn contest which was carried through both houses of Congress and into the cabinet, there to receive its final decision at the hands of Washington. The opposition, which had been aroused by the assumption of the state debts, to the strengthening and concentrating effect of the financial policy, cried out loudly against the additional bond of union disclosed in the bank. They railed against the class which was thus being bound to the government, and against the capitalists who were being brought to the side of the administration. They pointed out that the South and agriculture were sacrificed to the North and trade. But all was vain. Hamilton was now on the flood-tide of success, and the national bank passed by a good majority. The most formidable weapon employed against it was the constitutional argument used by Madi

son, and, as the President was known to have doubts on this point, the last and strongest stand was made in the cabinet. Jefferson, Randolph, and Madison severally gave Washington written arguments against the bank. In great haste and pressed by business, Hamilton made the famous reply which has already been discussed, and which gained Washington's adherence. In defending the bank, Hamilton established the doctrine of the implied powers, a matter infinitely more potent and more far-reaching than the establishment of the great financial machine which called it forth.

The last of the reports, that on manufactures, was economically more important than any of its predecessors, but it had no immediate results. Congress had already discussed the question vaguely, and had done something to favor home production and American commerce. The question of protection or free trade was constantly in men's minds, but a system was of slow growth. Hamilton pointed to the road to be followed, and other men travelled in it, among the first Jefferson and Madison with their plan of "allowances" for the fisheries, while at the same time they denounced the theory, its author, and all his works, including "protection and bounties." Hamilton marked out clearly and fully a plan for the development of industry, trade

and commerce. He turned the current of thought, he influenced the future, but the task was too mighty, the scheme was too vast to be carried out at once, or in fact otherwise than piecemeal, but it was a fit termination to the great work which he had accomplished.

Thus was the financial policy completed, adopted, and put in operation as Hamilton designed it. The only mischance was the speculation which began with the debt certificates, was fostered by the success of the bank, and expanded into a wild mania, and consequent panic and disaster. From the outset the Secretary had striven to check this spirit, of which he saw the evil and danger. He repelled his friends who sought information, and did all that was possible to cool the excitement. He strove in vain and then was blamed for the speculation, the rapid fortunes and the swift disaster alike.

The only miscalculation made by Hamilton was in regard to the rate of interest, which he supposed would fall, but which, owing to the marvellous rapidity of material development and the consequent employment of capital, really rose. The error was almost unavoidable, and it was quite harmless. The criticisms which have been made on this famous series of measures have been various and contradictory. It was said at the time that Hamilton made

the debt too permanent, but on the other hand it was also urged that he was putting too great a burden on the people, and the shorter the loan the greater the immediate burden. In this he observed a just mean and a wise moderation. The unexpected rate of growth in the country showed afterwards that the debt might have been paid more rapidly, but at the moment Hamilton's anticipations of revenue were generally regarded as absurdly sanguine. The most forcible criticism, which was made either then or since, was that the financial policy was too strong, that it put too great a strain upon the infant experiment, ventured too much, ran too great a risk, and came near causing shipwreck. Hamilton reasoned that if his financial policy could be made successful, a good national government might be built up, and that if it proved too strong and the new system gave way, then the constitution was not worth preserving. Of the soundness of this argument, as it seems to me, there can be no doubt. But after all the best evidence is in results. There was no public credit. Hamilton created it. There was no circulating medium, no financial machinery; he supplied them. Business was languishing, and business revived under the treasury measures. There was no government, no system with life in it, only a paper constitution.

Hamilton exercised the powers granted by the constitution, pointed out those which lay hidden in its dry clauses, and gave vitality to the lifeless instrument. He drew out the resources of the country, he exercised the powers of the constitution, he gave courage to the people, he laid the foundations of national government — and this was the meaning and result of the financial policy.

CHAPTER VII.

PARTY CONTESTS.

In carrying through his measures, Hamilton had found in the friends of the constitution material for a political party. The Federalists, when the new scheme adopted by their efforts went into operation in March, 1789, were a very different body from that which stood about the administration after the passage of the treasury measures. When the first Congress assembled, the Federalists had achieved their immediate object, and were waiting for the progress of events. They were like a body of volunteers, who had rushed together to fight a battle immediately before them, and now that victory was won and the enemy scattered they were but loosely held together, and as they stood looking about rather vaguely, dispersion was quite as probable as organization. To the Federalists Hamilton came as a leader. He gave them new objects, he raised still higher the standard of better government, showed them how the constitution was to be made to bear fruit, and that its adoption was merely the be-

ginning of the great work for which they had come forward. When the financial policy was finally embodied in legislation, the band of volunteers had become a compact, well-disciplined army, a strong party with a policy which showed great things done, and stretched forward to the future, pointing out what was still to be accomplished. This was the political success of the financial policy, but it was not without its penalty to the triumphant Federalists in general and to Hamilton in particular.

If the Federalists in 1789 resembled a hastily gathered army of volunteers, their opponents were mere scattered bands of guerillas. Broken by the successful adoption of the constitution, they wandered helplessly about, and gave way, with a good deal of spasmodic struggling before the compact forces and sharp assaults of the Federalists. Their only bond of union had been resistance to the constitution, and this not only became constantly weaker, but injured them by its very existence, as the popularity of the new system rapidly increased. Strong as they were in numbers, the Democratic party of the future had no better name than anti-Federalists, and no better cry than that of opposition to everything emanating from the government. This oose, incoherent mass was welded together by Hamilton's aggressive, decisive policy. It was

not much to do, but it at least compacted them, so that if the Federalists presented, when the National Bank Act passed, an appearance of which any leader might be proud, they were confronted by much more formidable opponents than when they carried with a sweep the funding of the domestic debt. The anti-Federalists had not only consolidated themselves, but they had concentrated their opposition with extraordinary intensity upon one man. In those early days Hamilton was thought by his opponents to be the embodiment of all power, and as his policy was developed before them he came to be considered the embodiment of all evil as well. His followers at first seemed to have been regarded largely as his creatures, and the dislike of the anti-Federalists extended only very gradually beyond the confines of the Treasury Department. The Secretary was once more accused of being "British" in his tastes and sympathies. From England, his enemies declared, he had borrowed everything. Nothing, it was said, was original in the most successful financiering of the time. He was, according to his opponents, preparing to go even farther, and was making ready to introduce monarchy, aristocracy, and the rest. Then came those hostile tributes to his genius and ability which have never been surpassed by the eulogies of his

friends. To Hamilton was attributed the sudden prosperity and the wild speculation, while he was also held responsible for not stopping the inevitable panic. Every member of the Federalist party was said to be personally inspired by the Secretary, and to be under the spell of his magical eloquence and subtle reasoning; he had, as was alleged, bewitched and blinded the unerring judgment of Washington, which had set the seal of its approval on the treasury policy. In attacks like these, of little real weight, but nevertheless likely as they increased in vehemence and repetition to arouse enmity and impair his influence, and in the drawing together of the opposition, Hamilton found the dark side of his brilliant success as a financier, a statesman, and party leader. But still the attacks were as yet mere mutterings of a possible storm, for the anti-Federalists were after all very weak, with but little ability except what Madison had brought over to them, and were living a precarious life of opposition solely for opposition's sake. They needed a policy, direction and point in their attacks; above all things they needed a leader. They found all three at the right hand of Washington, in Hamilton's own colleague and quondam ally, Thomas Jefferson. The Secretary of State had made up his mind. He could no longer sup-

port the administration. He could not govern Hamilton, nor would he be ruled by him. His own State was wholly against the government. In Hamilton's successful policy there were the germs of an aristocratic republic, there were certainly limitations and possibly dangers to pure democracy; he could not hope to lead or control the Federalists, and therefore nothing remained but to go to the leaderless multitude on the other side and overthrow the party of Washington and Hamilton. This, it is needless to say, was not done in a moment. Jefferson was the last man to make up his mind suddenly to a decisive step and then take it at once. He had no notion of cutting adrift until he saw how the land lay. Still less ready was he to come boldly forward with a programme and put himself at the head of a party. When he had his party all prepared he would do this, but meanwhile he would stay where he was.

It is impossible to fix the exact time when the dissensions in the cabinet, where the new party warfare took its rise, first definitely began. When the flame leaped up before the eyes of men it was evident that the fire had been burning for some time. We may say, however, in a general way, that the "rift within the lute" began after the assumption of the state debts, and was greatly widened by the disunion among the

President's advisers as to the national bank. It was in the winter of 1791–92 that Hamilton became satisfied that Jefferson and Madison were organizing and leading a party against him; but at that time, and for some months to come, he held his peace, and it would have been well if he had continued to do so. The secret work of Jefferson, who began his hostilities against the administration before any one suspected him, and who continued them while clinging to office long after his enmity toward all his associates was notorious, first showed itself in changes in the policy of the opposition. In the first place, they got a name and called themselves Republicans, as distinguished from monarchists, the equivalent of Federalists. The objects of opposition became better defined, and were formulated in such a way as to be taking cries and catch-words. A clear line of attack was marked out, and in short, from being a confused crowd, the anti-Federalists began to assume the form and substance of a compact party. This was the work of Jefferson, silent, subtle, retiring, making no speeches, and printing no essays, but doing a good deal of quiet talking and shrewd letter-writing, toiling in the dark and managing men. In the face of Hamilton's dazzling success, to form an opposition party of respectable character and good discipline, even

with abundant rough material at hand, was a great political feat. Even to make a beginning took time, and the few points just mentioned were the gradual developments of a twelvemonth.

Oddly enough, Jefferson's first blow — which shows him turning to the opposition six months before Hamilton suspected it — was hasty, and unlike himself, because it was publicly given, and fell not upon Hamilton but upon John Adams. That eminent man, finding but little occupation for his restless energy in the Vice-Presidency, betook himself to writing certain essays entitled "Discourses on Davila." These articles, speculative in character, but well reasoned, and calculated to check the fervor excited by the French Revolution, were very sound and conservative in tone, advocated constitutional government, checks and balances, upper houses, and the like. To Jefferson, entering upon the path of a democratic leader, all this smacked of monarchy and aristocracy, and he forthwith got out an edition of Paine's "Rights of Man" as an antidote to all such pernicious stuff, and prefixed to it a preface in which he hit a sidelong blow at the stout old patriot of Massachusetts John Quincy Adams replied as "Publicola." Jefferson got the worst of it, and after his fashion tried to explain it all away. This affair

however, set him to reflecting on the fact, that while the Federalists had in "Fenno's Gazette" an organ devoted to their service, and reaching into every State, the party of the future had nothing of the sort. In the following autumn these meditations bore fruit in the shape of the "National Gazette," edited by Philip Freneau, to whom Jefferson gave the position of translating clerk in the State Department. Thus fortified, Freneau, who was a bright fellow and a versifier of some little talent, began a succession of bitter, sometimes of clever and well-directed attacks upon the measures of the administration, and particularly upon Hamilton. Then it was that Hamilton, putting two and two together, came to the very accurate conclusion that Jefferson and Madison were organizing a party against him, and had established a newspaper in their interest as a very necessary part of the plan.

Jefferson, meantime, was at work in other directions. He wrote to Washington more than once, deprecating the treasury measures, and depicting a state of popular discontent, and stirred up others to do the same. At last, on a visit to Virginia during the summer of 1791, Washington heard from the lips of his "quondam friend," Colonel Mason, a long and adverse criticism upon the policy of the adminis-

tration. Taking this as an excuse, perhaps, Washington condensed all that had been written or said into a brief summary and sent it to Hamilton. Here we find the principles, or more properly the war-cries, of the opposition formulated for the first time with some clearness, and in every line we detect the cunning hand of the Secretary of State. Reduced to its simplest terms, this piece of criticism amounts to this: that Hamilton was politically a very bad and dangerous man, who had heaped up a vast debt, which was a sore burden to the people, but which he would not let them pay immediately, notwithstanding their overtaxed condition, but which he had contrived to render permanent; that he fostered speculation, juggled with paper money and the debt in order to influence Congress, where he maintained a corrupt squadron; and that he was laboring secretly to introduce aristocracy and monarchy. Hamilton dealt with this diatribe in a way very characteristic of him when he kept his temper, as he usually did. After a few lines of quiet indignation in his reply to the President, he proceeded to number all the objections made by Mason, and then discussed and answered each of them in his usual cold, forcible, and lucid fashion, just as if he were drawing a report or making a brief, instead of answering

gross personal attacks. The task was not difficult, for where the accusations were not contradictory they were hopelessly and plainly false, and Washington was entirely satisfied. Indeed, it must be confessed that Jefferson's first declaration of party principles was a pretty poor one. But it was better than anything the party by itself had been able to do: it gave them some valuable catch-words, and concentrated their efforts on the ruin of one man.

Whether this last assault was too much for his endurance, or whether the "National Gazette," now more vituperative than ever, had become unbearable, it is certain that after re-replying to the "Objections" sent him by Washington, Hamilton completely lost his temper. He descended into the arena of party strife, and proceeded to answer Freneau, and whip Jefferson over the shoulders of his editor. This was improper and undignified, the act of an angry man, righteously indignant, no doubt, but not on that account to be excused for taking his high office into the dust of a political newspaper brawl. There was, moreover, no need of it. Federalist politicians and Federalist editors were never either slow or feeble with pen or tongue, and were quite capable of defending their chief and their party. But Hamilton had lost his temper, and

a ready pen is a terrible temptation. Once engaged, he fought well, of course, and it may be admitted that he gained a temporary advantage. It is no excuse to say that all the leading men of the day wrote for the newspapers, and formed public opinion in that way. Hamilton was a member of the cabinet, next to Washington the most conspicuous man in the country, and he had no right and no business to send anonymous communications to the newspapers, savagely attacking one of his colleagues in the administration. He hurt his assailants badly, no doubt; he wrote brilliantly; he gained a temporary victory, but in the eyes of posterity he injured himself and his personal and official dignity. Jefferson, we may be sure, had not planned to draw Hamilton out. He never cared for debate either in the newspapers or by word of mouth. He had no love for a stricken field, and had doubtless believed that circumstances would keep Hamilton silent. He winced terribly when Hamilton rushed at him and publicly denounced him as the supporter of a journal devoted to attacks on the government, whose editor he provided for by public office. He smarted under the lash of a practised hand, which depicted him as a secret intriguer against the treasury measures, which demolished his charges and laid bare all the operations of the

financial policy, with great consequent credit to its author. For the time being the "National Gazette" was crippled, and the Secretary of State humiliated; but for this poor reward Hamilton had deeply grieved and troubled the President, who had watched the well-directed shafts go home, and who keenly felt the injury to the government and to the country of such a quarrel, so conducted, and between men occupying such positions. Washington remonstrated with both by letter, and the replies bring the two secretaries into strong contrast. Hamilton's letter was brief, direct, and manly. He said little about his antagonist, avowed his right to defend himself, and promised to do all in his power to keep the peace and hold the administration together. Jefferson's answer was long and tortuous. He defended himself elaborately against Hamilton's published attacks with a kind of wail in his tone which showed that he had been hurt; but he devoted most of his reply to Washington's request for harmony to venomous and bitter abuse of his colleague. As a practical result of all this, Hamilton stopped his attacks, while Jefferson opened fresh trenches in a new direction.

When Congress came together, Hamilton introduced a series of measures looking to the speedy redemption of the debt. One was to

insure the maintenance of the sinking fund, and provide for outstanding certificates; another, to borrow money at a lower rate of interest; and a third, to levy taxes to buy up the six per cents as rapidly as possible. By the strenuous efforts of the opposition, the last two were defeated, the proposition for new taxes, some of which fell upon the planters who were accustomed to raise revenue in the North, being particularly distasteful. Thus it was that the party which denounced the debt and accused Hamilton of using it corruptly, met his proposal to take all possible reasonable steps for its redemption, and having done themselves all they could to render it permanent, they yet continued to assail the Secretary for that very design.

But all this was the mere disingenuousness of party warfare. The next assault planned by Jefferson and Madison was a much more serious affair. It aimed at the personal ruin of the Secretary, and was intended to drive him from the cabinet and prove him guilty of corruption. The attack was headed by Giles, a rough, brazen, loud-voiced Virginian, fit for any bad work, no matter how desperate. First, accounts of one foreign loan were called for, then of all; then when it appeared that two loans had been consolidated for which there was but doubtful authority in law, and while Jefferson

was insinuating to Washington that Hamilton had used these loans corruptly to aid the bank, there came a string of resolutions calculated to lay bare every operation of the treasury. Jefferson and Madison in this business made the great mistake of not knowing their man before they fell upon him. They probably had little real doubt of Hamilton's integrity, but they thought he would find it difficult to demonstrate it by figures; they thought that in all these complicated finances there might be errors susceptible of distortion which would cause them to be misconstrued, and, above all, they hoped that Hamilton would be so harassed that he would leave the cabinet. They reckoned without their host. Hamilton was not only a man of spotless integrity in his vast financial transactions, but he was essentially a fighting man. When danger of this sort came upon him, his head became clearer and his nerve greater than before. He was no longer writing anonymously in "Fenno's Gazette;" he was a great minister, called upon without warning to defend himself, his honor, his office, and his department. Now his genius for organization told in the readiness with which, under his system, everything could be accounted for. Report after report poured in upon Congress until every operation of the treasury was

displayed to the public eye so plainly that he who ran might read. Those who had undertaken this ill-starred business would fain have adjourned and left it all unsettled. But Hamilton was too quick for them, and before the session closed everything had been exposed to the public gaze. The Federalists rejoiced, and eagerly pressed their advantage. Giles introduced resolutions of censure, and the Federalists forced a vote on all of them. Poor Madison, who was preëminently a man of peace, but who had been dragged into this as he was into all his great mistakes by others, had no escape. He was compelled to go on record in favor of the resolutions in a minority so small that it was at once ludicrous and humiliating when contrasted with the grandeur of the preparation and the violence of the abusive declamation which had accompanied the whole proceeding.

We know that the efforts made by Hamilton to accomplish this feat told severely on his health, and the event is one of the most important in his career, because it brought out so strongly the salient features of his mind and character. Hamilton could organize and discipline bodies of men both in war and politics, but he was not a party manager. He could marshal his forces in debate as he marshalled his arguments; he could lay out a policy and

displayed to the public eye so plainly that he who ran might read. Those who had undertaken this ill-starred business would fain have adjourned and left it all unsettled. But Hamilton was too quick for them, and before the session closed everything had been exposed to the public gaze. The Federalists rejoiced, and eagerly pressed their advantage. Giles introduced resolutions of censure, and the Federalists forced a vote on all of them. Poor Madison, who was preëminently a man of peace, but who had been dragged into this as he was into all his great mistakes by others, had no escape. He was compelled to go on record in favor of the resolutions in a minority so small that it was at once ludicrous and humiliating when contrasted with the grandeur of the preparation and the violence of the abusive declamation which had accompanied the whole proceeding.

We know that the efforts made by Hamilton to accomplish this feat told severely on his health, and the event is one of the most important in his career, because it brought out so strongly the salient features of his mind and character. Hamilton could organize and discipline bodies of men both in war and politics, but he was not a party manager. He could marshal his forces in debate as he marshalled his arguments; he could lay out a policy and

give directions to his lieutenants, but he could not deal with the rank and file. With his party behind him, he could lead; but others must manage the forces. With the same overwhelming impetuosity with which he charged the Yorktown redoubt he now rushed upon Giles and upon those who moved the wires which made Giles dance. In the dash of the onset we see the vehement energy and strong passionate nature of Hamilton toiling day and night, until the color left his cheeks, that he might compel an issue before Congress adjourned. Yet in all this hot enthusiasm and defiance comes out the clear, cold, penetrating intellect which without an angry word could draw out schedules and balances and accounts, a long array of silent and convincing figures and facts, and nothing else. When at last the conflict was over, and he had routed his opponents and stood flushed with victory, it is no wonder that the party chiefs gathered round him with a zealous devotion. The people saw that Hamilton had triumphed; that he had been right and his enemies wrong; that he had been clean and above reproach. But these long columns of figures did not appeal to the popular imagination, and the masses did not appreciate the magnitude of the battle which had been waged. The leaders in Congress and elsewhere

saw all this, and it was with them that Hamilton stood highest then and always. There was probably no one, however, who appreciated the situation so keenly as Jefferson. The most desperate assault possible had been disastrously repulsed. Hamilton was higher than ever in the public esteem, stronger than ever in the estimation of his party, now rendered more aggressive and active than before. He could not be driven from the cabinet. Direct attacks upon him had clearly failed, and Jefferson made no effort to take up the shivered lance, which he had placed in another hand to use in the open lists. It only remained to stay in the cabinet and there contend with Hamilton for supremacy in guiding the course of the government and winning the confidence and trust of Washington.

CHAPTER VIII.

FOREIGN RELATIONS AND THE MAINTENANCE OF THE AUTHORITY OF THE GOVERNMENT.

I DO not propose to deal here with the question of the foreign relations of the United States at this period, for the subject is one of the broadest scope, and fit only for a general history in the most comprehensive sense of the term. It was at this time that the foundation of the so-called Monroe doctrine was laid by Washington's proclamation of neutrality, which marked out the true foreign policy of the United States by declaring that this republic of the new world would hold itself aloof from the struggles of Europe. The policy thus laid down was one of the great corner-stones placed by the wisdom of Washington's administration, and upon which the fabric of national greatness was founded. To convert the doctrine of the neutrality proclamation into a guiding and fundamental principle of the state, was the work of more than a quarter of a century, and upon our foreign relations during that period the history of the country turned. When they first come into

prominence during Washington's first term they mark the beginning of an important phase of our development. Between the proclamation of neutrality and the close of the war of 1812, this country adjusted its position among the nations of the earth, settled its foreign relations which then drew the political lines in the United States, and on which the fate of our parties hung, and completed the work of the Revolution by breaking the fetters of thought as the war had severed the political bonds. In a word, for many years after the neutrality proclamation, the country was engaged in changing its ideas from those of colonies to those of a nation, and in struggling to make itself as independent mentally as it was politically. Into this broad and inviting field it is no part of my purpose to enter. My object is merely to show the place in it which Hamilton occupied, his opinions as to our foreign relations, and the part he took in shaping our foreign policy. Above all I wish to depict his attitude in regard to the French revolution, which convulsed the minds of men throughout the civilized world far beyond its own borders, far beyond the regions even where its armies penetrated, and of which it may be truthfully said that Hamilton was one of the most illustrious victims both in his life and in his death.

In March, 1789, our situation in regard to foreign nations was anything but enviable. England, with ill-concealed hatred, held the western posts, and refused, on account of the unpaid debts of British subjects, to indemnify us for the slaves which had been carried off during the war. She flouted our ministers, refused to send a representative to this country, and strove in every possible way to injure our commerce, of which she had so lately enjoyed a monopoly. Our relations with the mother country were, in short, as strained and mutually offensive as possible. With France, toward whom we felt as a people a sincere gratitude, they were hardly more favorable. Jefferson had failed to obtain from that country any better commercial treatment than was accorded by England. With Spain there was a chronic quarrel, and a dark cloud of war and aggression hung over the valley of the Mississippi. Hamilton felt that the first steps toward placing the United States in the position which they ought to occupy, were the restoration of their credit and reputation, and the display of order, strength, and resources which this involved. He rightly believed that success and stability would do more than anything else to compel the respect and consideration of the rest of the world. So far as the various nations were con-

cerned, while as an individual citizen he was inclined by his feelings toward France, as a statesman he clearly saw that all nations must be treated alike; that, owing to her geographical situation, America had no such things as natural alliances and enmities, but that at the same time on commercial grounds friendly relations with England were vastly more important than with any other nation of the earth. With England, too, the objects at which Hamilton aimed would count for more than anything else. Whatever inconsistencies England may have been guilty of, she has never swerved in civility and respect for success, strength, and wealth, and this Hamilton well knew. But he did not reckon on this alone. In his report on manufactures a cardinal principle was that of retaliation, and the hand he meant thus to force was the hand of England. At the same time he regarded the efforts to discriminate between the various nations, that is, in favor of France and against England, on the ground of gratitude to the one and hatred to the other, as wholly false in principle. Such a course would surely lead to further disagreements with the latter, and the object of the United States was not to indulge in sentiment but to build up its national greatness and grow rich by its commerce. To treat all nations as they treated

us and to bury the past which should not be allowed to hamper the new government, was Hamilton's theory. He had no attachment to England, but rather the contrary. He admired the British constitution as the best system of free government in existence; like all his fellow citizens he had been nurtured amid the English traditions of law and government, and he had no question that English principles in respect to law and government were, with proper modifications, best suited to the United States. Toward France he felt both affection and gratitude, and in that country were many tried and loved friends and companions in arms. But he wished the new republic to lay aside all sentiment and prejudice as well as all inconvenient memories and to start fair and free with a view only to her own interests, and a general determination to treat all nations alike if they all behaved equally well; to have no alliances, no friendships, and no enmities, but to cut loose from all complications and aim only at success.

Hamilton's theory as exemplified in the financial policy worked well. Evidences of respect abroad began to multiply. Washington, through Gouverneur Morris, sounded England in regard to the renewal of diplomatic relations, which had been practically severed since the day when John Adams had been driven away from St.

James by a stupid insolence which England has always been fond of displaying toward this country and which has cost her, first and last, many bitter lessons. The result of Washington's experiment, backed by the rapidly growing prosperity of the country and the increasing stability of the government, was the appointment of a minister to the United States in the person of Mr. George Hammond. This gentleman was empowered to begin negotiations for a commercial treaty, but could conclude nothing. The reëstablishment of commercial relations on a basis something like reciprocity was still distant enough, but nevertheless a good deal had been gained by the mere renewal of diplomatic intercourse. Hammond's negotiations were not very fruitful, but they went on pretty steadily, and Hamilton took a considerable share in them from time to time, more, it must be confessed, than strictly belonged to him as Secretary of the Treasury. The truth was that Hamilton had a policy for the new government in every direction as well defined as in financial affairs, and he strove to put each and all into effect. He could not rid himself of the idea that he was really the prime minister, a notion encouraged by the way in which Congress had thrown all sorts of questions into his hands for decision. Moreover his schemes deserved and won the

confidence of Washington; and the result was that Jefferson, entirely innocent of clear-cut, sharply defined plans and policies, and waiting to be guided by events, found himself, much oftener than was pleasant, pushed aside, ridden over, and, as in the case of Hammond, more or less interfered with.

While the United States were thus making their way into the family of nations the French revolution began, and in a few years the newly launched ship of the young republic was tossing in the midst of the terrible storm which found its centre in Paris. The first news of the great movement in France was received in this country with universal pleasure and delight by men of all shades of political belief. As to the benefits of a free constitution in a country toward which we felt so warmly, all persons, the ultra-Federalist and the radical opponent of the administration alike, were agreed and had a common gratification. But the rapid changes rolled on and one event succeeded another, each with terrible logic more dreadful than the last, and all hurrying to the worst extremes of violence. When reform became revolution, revolution anarchy, and redress revenge; when hot-blooded killings in the street changed to cold-blooded massacre and cowardly murder in the prison and the palace, culminating at last in the

execution of the king and the daily slaughter of the guillotine, then public opinion in America shifted. First the timid and suspicious began to doubt, then the more cautious began to fear, then such men as Washington and Hamilton lost sympathy with a battle for freedom fought in this wise, and the latter rebelled against comparing the French revolution with our own, saying, "The one is liberty, the other licentiousness." The general enthusiasm with which the French revolution had been greeted, faded away; but while that conflict became distasteful to the mass of the people and an object of suspicion and dislike to the Federalists, the revolutionary fever strongly infected certain elements which predominated among the enemies of the administration. As one side headed by Washington and Hamilton cooled towards France, the other side grew proportionately hotter in admiration and love for the principles of the revolution, just then becoming rather wild and uncertain. This widening rift between two bodies of public opinion was certain before long to breed a party issue. So long as men watched events in Paris and came to one conclusion or another as a matter of abstract theory, no harm was done, but sooner or later these conclusions would be brought to the touch-stone of practical decision, and then the parties which

had been evoked by the revolution would begin a fierce conflict. Early in April, 1793, the news arrived that war had been declared between England and France, and that a new minister from the terrible republic had reached Charleston. The decisive moment had come, and Hamilton sent post-haste for Washington who was at Mount Vernon. When the President reached Philadelphia, he found his two secretaries prepared to meet the crisis, the gravity of which no member of the administration doubted, but prepared to meet it in ways very different and highly characteristic of the two men. Jefferson loved France and the ideas of the revolution, and he hated England, but he also dreaded war, and had no desire to have the United States drawn into hostilities. Under these circumstances he was unable to make up his mind as to any definite plan. In order, therefore, to get, if possible, an expression of public opinion and thereby come to a determination and be rid of responsibility, he proposed to call Congress at once in extra session. It is probable that he saw an opportunity to make party capital by the agitation of this subject in debate, but it was at all events the only suggestion he had to offer to Washington.

Hamilton on the other hand cared for neither England nor France, except so far as he loathed

the bloody anarchy of the one and respected the stability and order of the other. His thoughts were fixed on the United States, unbiased by a sentiment for or against any other nation. For the United States he dreaded war almost as much as Jefferson did, but unlike his colleague he had not the slightest doubt as to the position to be taken at that trying moment, and he had fully made up his mind as to the true policy to be adopted. Hamilton had no desire to shift the responsibility of a duty which he conceived to belong to the executive, and which he also thought would be far safer in the hands of Washington than if it were tossed about in a legislative body. He had no wish, therefore, to have Congress called together; but he prepared a series of questions embodying his views; and these he submitted to Washington, who laid them before the cabinet. The policy outlined by these questions was the maintenance of a strong, strict, and genuine neutrality by the United States, to which the utmost publicity should be given, and then a careful consideration of our relations with France, in order that the past might not be so construed as to entangle us with the fortunes and conflicts of the revolution, and in that way drag us from our true position of absolute neutrality and consequent peace. The first question as to issuing a

declaration of neutrality was carried in the affirmative and the proclamation to that effect soon appeared. This was really the central point of the whole policy of Washington and Hamilton, and was one of the great landmarks established by the Federalists for the guidance of the republic. There is no stronger example of the influence of the Federalists under the lead of Washington upon the history of the country than this famous proclamation, and in no one respect did the individuality of Hamilton impress itself more directly on the future of the United States. So little was it understood at the time that when thirty years later the same principle, in an extended form, was enunciated by Mr. Monroe's administration it was hailed as a new doctrine, and incorporated as a leading article in the political creed of the United States. When adopted and put forth by Washington, this truism of to-day was hardly appreciated. The colonial spirit, which was the spirit of the past, made it seem impossible that the United States should be wholly apart from the affairs of Europe. The Federalists acted on the principle thus laid down while they held power, maintaining a bold and strong neutrality, and ready to strike the first nation, no matter which it was, that dared infringe it. After the fall of the Federalists this doctrine slipped out of

sight. For a vigorous neutrality, ever on the alert and ready for war, was substituted a timid, exasperating policy of peace protected by commercial warfare. Ten years of bitter political conflict, including three years of foreign war, was the result, and by this harsh process the colonial spirit was finally exorcised. Then the national foreign policy, formulated, devised, and adopted by Washington and Hamilton, was popularly accepted under the administration of Monroe.

The primary question of neutrality was settled by the proclamation. It then became necessary to fix the character of this neutrality by a careful determination of our attitude towards the most aggressive, active, and dangerous of the belligerents, — the French republic. The second point therefore came on the reception of the minister of France, which was settled in the affirmative. Then followed a series of perplexing questions as to receiving the minister with or without qualifications, and as to our relations to France under existing treaties. Up to this point the cabinet had succeeded in reaching an agreement, but now they diverged widely. Hamilton wished it distinctly understood that by receiving the French minister the United States did not admit that the treaties were now binding in their full extent. These

treaties provided, of course, for the payment of our debt to France, and also for the guarantee of the French possessions on this continent, and for a defensive alliance. Hamilton, who at the outset had done his best to expedite payments to the new government, had more recently begun to hold back. He now said that while there was no doubt of the general rule of international law, that for treaty purposes the existing government was to a foreign nation the same as any predecessor, yet this rule, like all others, required reasonable construction. The change of government in France, he added, was of such a nature as to alter every circumstance under which and for which the treaties had been made, and therefore the United States had the right to renounce them. Moreover, everything was so uncertain and shifting in France that to live up to the treaties with the present government might in a few months amount to a cause of war with its successor. Again, the war was not defensive, and so Hamilton concluded that all this should be plainly stated to the minister, so that he might understand that we did not intend to be bound by the treaties. Hamilton's construction was, at least, that of the French Convention, which had just annulled a clause in one of the treaties, but it was also the sound and statesmanlike view. His arguments go to

great length, and are clear and acute, as usual, but the central idea was as simple as it was wise. The French treaties were legacies of the past. They were colonial in spirit and in fact. The opportunity had now come to be rid of them legally and fairly. Hamilton's entire policy was to take immediate advantage of the opportunity, cut loose from these entangling bonds, and thus assume in foreign affairs a wholly free and thoroughly national position. Jefferson, on the other hand, was for a rigid construction of the law of nations, and for the maintenance of the same close connection with the republic as with the monarchy, always barring actual war.

These contending views, however, and a decision upon them, were soon pushed aside by the appearance in person of Genet, the minister himself, who raised a series of difficult and exasperating questions of the most practical kind so quickly, that there was no time to consider general policies. The administration found enough to do in checking Genet's mischief without coming to any conclusion as to the qualifications with which he should be received, or as to the statements which should be made to him with reference to the attitude of the United States in regard to the treaties. The policy of the United States toward France

was, indeed, settled during these contests with her representative, and ultimately according to Hamilton's doctrines, but it was done bit by bit, in sore vexation of spirit, and not broadly, comprehensively, and quietly.

Indeed, from the time when Genet came upon the scene, a settlement in the latter fashion was out of the question. The new minister was a bright, light-headed Frenchman, maddened by the wild ideas of Paris. He rushed from one excess to another from the day of his arrival until that on which his successor appeared, and he endeavored to raise about him a party to overthrow the administration. His first act was to fit out privateers at Charleston, and thence proceed with a sort of triumphal procession northward to Philadelphia. Difficulties now gathered thickly about the cabinet. The fitting out of privateers and the capture of prizes by these privateers, as well as the seizure of British vessels within our waters, all leading to expostulation and demands for redress on the part of the English minister, confronted the administration in a constant succession of cases. Hamilton, whose policy was not neutrality with a covert leaning to one side, but a genuine neutrality treating all alike, took strong ground in favor of giving up at once the prize made by a French ship of war within our waters. He

also urged the immediate stoppage, by all the force of the government, of the enlistment of seamen and fitting out of privateers by the French in our ports, and the surrender of all prizes of such privateers, or if restoration was impossible, then compensation on our part to the owners wherever we had failed in our duty as a neutral. The first point prevailed at once. The third was resisted by Jefferson as too much in favor of England, and as amounting to reprisal. For a time decision on this point was suspended, but ultimately Hamilton's view received the sanction of Washington. On the fitting out of privateers a long struggle ensued between the French minister and the administration. Here a privateer would be stopped, and there one would escape. Americans were arrested and tried for infractions of neutrality by enlisting on the French privateers, and at last French consuls, who were undertaking to govern in this country as their fellows did in the states of Europe bordering on the terrible republic, were deposed from office and deprived of the right to exercise their functions. This fitting out of privateers finally culminated in the case of the Little Sarah, sent forth from Philadelphia in flagrant contempt of the government, and beneath the very eyes of the cabinet. Hamilton and Knox urged strongly and

characteristically the duty of placing a battery on one of the islands, and of firing upon the privateer if she attempted to escape. Thanks to Jefferson, however, who believed, or pretended to believe, that Genet had promised not to let the vessel go, and who was in a tremor at the idea of joining in "the combination of kings" and getting into war with France, Hamilton's plan was not carried out, the militia were withdrawn, and Genet sent the privateer at once to sea. Washington came back in a state of indignation, and Jefferson found himself so thoroughly uncomfortable that he now seriously thought of resignation.

In other quarters Genet was equally active. He made a continuous effort to get all the money due to France. He anticipated payments so far as he could and then asked for more, and almost insisted that he should receive the whole amount either in money or provisions. But in the domain of the treasury Hamilton was master and unrestrained. Genet's loud demands passed idly by. The Secretary paid him what was due, allowed him a reasonable anticipation, and could not be moved to do more. When the Frenchman threatened to give notes on the United States for what he wanted, in order to fit out privateers and illegal armaments in the Southwest against Spain, Hamilton gave him

to understand that he might draw if he so pleased, but that his drafts would not be honored. It is refreshing, amid the bewildering complications of that confused time, to see the vain beating of the Frenchman at the doors of the treasury, and the perfect success of Hamilton's cool, unalterable attitude.

Genet, however, made even more trouble for the administration in our own politics than he did in the management of foreign relations. The sober and intelligent opinion of the country had turned away in disgust from the excesses of the French revolution, but this opinion was silent and observant, and as yet inactive. On the other hand, the thoughtless and careless, the rabble in the larger cities, the foreign refugees from England and Ireland, and the more violent elements of the opposition were infected by the excitement of the French. In contemplating the objects of the movement in Europe, they overlooked the terrible means employed, and allowed their reason to be confused by the extravagant jargon of the new republic. The noise and enthusiasm were therefore with Genet. Banquets and processions, red caps, and democratic societies, and the ravings of Freneau and Bache in their newspapers, all brought the half-crazed Frenchman to believe that the people were with him, and that through them he

could force the government to do his pleasure. This agitation became so violent that Hamilton felt it to be necessary to evoke and give a lead to the opposite sentiment, and in the summer of 1793 he published a series of essays signed "Pacificus," defending the proclamation and the policy of the administration. These papers, written in Hamilton's clear, convincing fashion, served their purpose of awakening the better part of the community to the gravity of the situation, and began the work of rallying the friends of the government to its active support. Calmly but steadily the administration persisted in carrying out its policy, despite every obstacle, foreign or domestic, and in the neutrality rules of August they laid down the principles of Washington and Hamilton as those by which they meant to stand, and by which the country should be guided in its foreign relations.

Genet's language and the tone of his letters increased continually in violence, and became at last so intolerable that the cabinet agreed to send his correspondence to Paris and ask for his recall. It was also resolved to furnish him with copies of this correspondence and of the demand for recall. Jefferson, whose private intercourse with Genet had been very different from his official attitude, warmly opposed this

disclosure, fearing that it would lead to an outbreak. Hamilton, on the contrary, with all his fighting qualities now thoroughly aroused, wanted to go much farther. He wished in the first place that the recall should be made in sharp and peremptory terms. He advocated, also, the immediate publication of all the correspondence, and a direct appeal to the people. To this proposition Washington inclined, but Jefferson succeeded in defeating it. Genet, however, soon made the appeal himself, by publishing a letter which raised a direct issue between the President and himself. The tide of public sentiment now turned strongly. The ruling elements in the community came forward, the administration found itself supported, the armaments in the West were checked, and the French consuls brought to terms or deposed. Again Hamilton and Washington wished to go farther and suspend Genet from the exercise of his functions, and again Jefferson checked and prevented decisive action. The result was that Genet went on for a few months longer insulting our government, and doing a good work in stimulating the public resentment against France, but his power for mischief ended when he appealed to the people against Washington.

Hamilton's course in all these complications is highly characteristic. After carefully watching

events in Europe, he advocated, when war was declared, a sharply defined and strict neutrality, and then a firm but cautious severance of all the entangling bonds which held us to France. But when Genet appeared with insults and aggressions, instead of negotiations and discussions, Hamilton, while still urging the rigid enforcement of a genuine neutrality, wished to lay aside diplomacy with the French minister, and rebuke him openly and severely. He had, moreover, no desire for the assistance of Congress, but preferred to have the executive deal with the whole matter and meet every complication as it arose. Jefferson acted simply as a drag on the policy of his colleague, which, nevertheless, finally prevailed at every point; and it is perhaps in some degree due to the opposition of the Secretary of State that the administration came through all these trials so successfully. Washington sympathized with Hamilton's views and ultimately gave his approval to all of them. When Washington was angry, — as he was on one or two occasions in this eventful summer, — he was to the full as combative as Hamilton. It is very conceivable that there were moments when they might have moved too fast and struck too hard, if it had not been for the persevering resistance of Jefferson. But however this may have been, the policy of

a strong and impartial neutrality triumphed and was put in practice. At every step the two secretaries went farther apart, the one pushing on the successful policy, the other holding back, clinging to the French treaties, and professing that everything, neutrality and all, depended on the sanction of Congress. The summoning of that body was another point on which Jefferson had suffered defeat, and all this, joined to the false position in which he was placed, by holding one language officially, and another privately to Genet, by taking one attitude with his party friends and another in the cabinet, led to his resignation, which he with reluctance deferred until the assembling of Congress.

When that body came together, the wisdom of not calling it before was plainly manifest. Genet had succeeded in one thing. He had created a party issue, and had given a definite object to the motley masses of the opposition. The financial policy dropped out of sight, and the now united opponents of the administration fell with a swoop upon our foreign relations. Everything conspired to help them. While our government was trying to preserve neutrality and keep the country out of the current of the French revolution, Great Britain had begun that course of arrogant, aggressive interference with our commerce, which was perhaps the

stupidest blunder she made in her protracted struggle with France, and which continued until it produced war in 1812. This conduct gave the opposition precisely the handle they wanted. Then, too, Jefferson was enabled, just before he left office, to map out the course to be pursued by sending in to Congress all his correspondence with Genet and Hammond, and a report on our commerce which indicated that policy of commercial warfare destined in later years to become such a curse to the country. Hamilton, who appreciated the party purposes to be gained by this, opposed the transmission of the Hammond correspondence; but Washington, who always rose above party, rightly decided that everything must go in.

In his dealings with Genet, Jefferson had been under the supervision of the cabinet, and his work was therefore spirited and strong, while with Hammond he needed no incentive to take a bold attitude. The correspondence therefore, as a whole, was vigorous in tone, and having all the ability for which Jefferson was conspicuous in letter-writing, deserves a high rank among our state papers. Invigorated by their leader's success, the opposition at once took up the line he had marked out in his commercial report — which was by no means a very able document — and Madison introduced resolutions

to establish duties against nations not in treaty with us. Hamilton knew that the more eminent leaders on his side would meet this question in their own way, but this did not content him. He could not reply to Madison personally, but he determined to do it through the mouth of another. He therefore equipped his friend, Mr. Smith of South Carolina, with a speech, and in this way met Madison at the outset of the undertaking. Smith's reply, thus provided, was strong and effective. The Secretary lifted the question at once out of the confusion of foreign politics, and placed it on purely commercial grounds, arguing against the resolution on his constant principles that in trade this country should know neither friend nor enemy, but be governed wholly by its interests. The argument was unanswerable, but the House passed the resolution against which it was directed. To the second resolution Nicholas offered an amendment, naming England as the object of the hostile discrimination; but his own party was not ripe for this step, and the whole matter was postponed. Then came a fresh and worse aggression on the part of England in the form of an order in council to seize all vessels loaded with French produce. As ready to resent attack from one quarter as from another, Hamilton declared this order an outrage, and urged

the fortification of the seaports and the immediate raising of troops. The Federalists in the House, adhering like their leaders to the doctrines laid down by Washington, sprang forward with strong measures for an army, a navy, and an embargo, in order to prepare the country for war, which seemed indeed close at hand. The opposition, always prodigal heretofore of brave words, now held back, and stoutly resisted practical fighting measures, opposing particularly the bill to establish a navy, which subsequently became law. They were ready enough for party purposes to declaim against England, to talk war and yet keep the peace. They were quite prepared to sequestrate debts, — a piece of swindling denounced by Hamilton, — and be as offensive as possible to England, but they were not half so ready to fight with their kinsmen as were the "British" Federalists. It was plain that the country was drifting rapidly into war, which Washington saw clearly would be most perilous to the fortunes of the young nation. Hamilton's idea of a special mission to England met, therefore, with the warm approval of Washington, who at once turned to his Secretary of the Treasury as the fittest man for this delicate and important task, an opinion in which he was fully sustained by the Federalist leaders. But the Virginia party, headed

by Madison and Monroe, greatly alarmed at the prospect of this appointment, made an active and bitter resistance. Washington, anxious above all things for the success of the mission, and in order to prevent the country from being torn with faction in the face of these foreign troubles, gave up his first choice and sent Jay, at the urgent recommendation of Hamilton himself. The opposition in the Senate was bitter, but the nomination was confirmed; and Jay's instructions, drawn in outline by Hamilton, were toned down and then adopted by the cabinet. There are few acts in our history which show greater force, courage, and address than were displayed by Washington and Hamilton in carrying through this appointment despite every obstacle and the most determined opposition which, even while it acquiesced in the selection of the envoy, sought by every means to hamper him and precipitate war. Under the circumstances it must be admitted that Washington was judicious. Yet Hamilton would undoubtedly have made a better treaty, and one more satisfactory to the country than that obtained by Jay. With all the senseless clamor about his British sympathies, Hamilton would have aimed to get as much as possible from England, by taking a high tone in the negotiation. This was shown by his draft of

instructions, which were modified by the cabinet, in the direction of greater concessions to the English demands. He appreciated as entirely as any one the necessity of peace, and had plenty of tact and address, but he was far firmer, bolder, and more audacious than Jay, and these were the very qualities which were needed. The Jeffersonians were justly alarmed. If Hamilton made a successful treaty he would be stronger and more popular than ever, and it would all redound to the credit of his party, and to his own dreaded influence. If, on the other hand, he should make a treaty which conceded much to England, he would probably force it through the Senate, and we should then be closer to England and farther than ever from France. With these views the outcry against Hamilton was started. It may well be doubted whether by the most virulent resistance the opposition could have done much harm, but it was possible that they might, and therefore Washington prudently decided as he did. At all events, the appointment of Jay, a more conciliatory policy on the part of England, and the appearance of Fauchet to take Genet's place, brought an interval of calm in our foreign difficulties, and permitted the administration to congratulate itself on the skill with which it had steered through

the perils and complications of the past six months.

We have already seen the tendency of Hamilton in mind and temperament to distrust a pure democracy and to have faith only in a strong government and in the influence and power of the upper classes, even if those classes did not find, as he thought they should, direct recognition in the constitution. This tendency was turned into settled conviction as a matter of general principle by the spectacle presented to his observation in Paris. When the matter, however, was brought directly home to him by Genet, by the popular support of France, and by the wild talk of the opposition press and speakers, Hamilton passed rapidly from the general to the particular and began to believe not only that pure democracy was abstractly perilous, but that there were in this country, as in France, elements which considered democracy and anarchy as convertible terms, and were bent on producing the latter.

In what he called the "political putrefaction" of Pennsylvania, and in the disturbances of the western region of that State, Hamilton found, as he thought, a practical manifestation of the justice of his views as to the dangerous elements in our population. At last, too, the time had come when a pacific policy towards

the malcontents was plainly impossible, and Hamilton was allowed to deal with what he deemed the elements of anarchy, as he thought they should be dealt with, for it is unnecessary to say that Hamilton, for this contingency also, had a policy, obvious and simple enough, it may be admitted, but still well-defined and thorough in details. The trouble had, in truth, been for some years coming to a head. The only serious criticism of Hamilton's financial policy is that it was too strong, that it strained the new fabric too severely, and this criticism always seeks proof in the excise law, which had been rendered necessary by the assumption of the state debts. Apart from the unanswerable economic arguments in favor of taxing spirits, Hamilton believed that unless the government could enact and enforce such a proper law the system of the constitution was really worthless. The need of revenue carried the Excise Bill through Congress, in 1791, despite much bitter opposition. Its passage was the signal for the immediate display of a lawless and riotous temper in western Pennsylvania, where the manufacture of whiskey was chiefly carried on, and thence it spread rapidly through the similar regions of Virginia and North Carolina. At the next session amendments perfected and modified the obnoxious law, while Hamilton

devised every method to render its execution as easy as possible.

Still the disorders went on, until in the summer of 1792 they reached such a point that Hamilton, tired of the dilatory and ineffective processes of law, thought the moment had come for the direct and decisive application of force. Washington, however, was not ready for extreme measures, and so Hamilton drafted a proclamation, which Washington sent to Jefferson, who countersigned it, declaring privately that he wholly disapproved it. The proclamation and Washington's journey through the South had a good effect, and the disorder subsided in Virginia and North Carolina. But in Pennsylvania the state of affairs continued to grow steadily worse, and the opposition to Hamilton's vigorous attempts to enforce the law grew more violent. Finally, Congress gave the executive additional powers, which were sorely needed, but their exercise was the signal for armed resistance to the officers of the United States. From gross and brutal outrages upon property and persons, the insurgents passed to open defiance of the law. The United States mail was stopped, large bodies of armed men gathered, and the speeches and publications of the leaders proclaimed the overthrow of the government. The emergency had come

and Washington met it as he did every crisis, calmly, firmly, and successfully. Hamilton was at his side, ready with every detail. He had carefully and characteristically estimated the number of men capable of bearing arms in the insurgent counties, and knew precisely how many troops would be needed. The States responded to the call of the President, and with fifteen thousand men the administration faced the incipient rebellion.

Hamilton after his own energetic fashion wanted to serve as an officer, but finding this impracticable accompanied Washington and the army, and later went on without the President in general superintendence of the operations. It was his policy, and he was determined to carry it through even at the point of the bayonet, if the ordinary machinery of the law proved powerless. An attempt at negotiation was made by the frightened and more cautious among the leaders of the insurrection. The government readily gave them this last chance, but the conference came to nothing, and the army moved forward and spread through the disaffected region. Then the insurrection faded helplessly and bloodlessly away. It disappeared not only completely, but ridiculously and with humiliation to the vanquished. Gradually the disaffected came in and submitted, and were

treated with the leniency which is so strong a trait in the American character. Hamilton himself showed a forbearance not a little remarkable in a man of his bold and imperious nature. But he was too wise to seek punishment or revenge. He had triumphed. His policy was vindicated. It had not been too strong for the government, but had shown, on the contrary, the force and vitality of the new system. The power put forth had been simply overwhelming, and insurrection had been crushed without leaving any memory of bloodshed to rankle in the hearts of the people. The financial policy had in truth converted the system of the constitution into a living, vigorous organism, and the unshrinking exercise of force by the administration, which was wholly due to Washington and Hamilton, brought to the government new strength, vigor, and respect. The suppression of the "whiskey rebellion" had shown the government to be capable of maintaining itself against armed resistance. The lesson of Shays' rebellion had not been wasted, and the contrast thus afforded between the government of the confederacy and that of the constitution was the crown of the masterly domestic policy which had been begun by the first report on the public credit.

When Congress came together the victory of

the administration was apparent in the enfeebled action of the opposition, and the Federalists were not slow to take advantage of it. Among Genet's legacies, and by far the most objectionable, were the Democratic societies, so-called, modelled on the famous "clubs" of Paris. They were worthless, noisy assemblages, given to useless agitation. Hamilton, perhaps, saw in them the same capabilities for mischief, the same anarchical tendencies, as in their Parisian prototypes, but both he and Washington and the Federalists generally considered them dangerous, obnoxious, and by their clamorous folly largely responsible for the outbreaks in Pennsylvania. Washington, therefore, strongly sustained by Hamilton, smote them with all the force of his rarely used personal influence and popularity. He denounced them in his message; the Senate supported him, and after a heated debate in the House the opposition, despite their majority, were unable to protect their beloved associations. The blow, sharply struck and well calculated in point of time, was decisive. The societies withered away, and Genet's work was at an end. This closed the first chapter in the history of the struggles growing out of the French revolution. The administration had come through this period of trial with perfect success. Neutrality had been estab-

lished and maintained, the wild sympathy with France had been checked and discredited, domestic insurrection had been put down and nationality had been advanced and strengthened beyond all former expectations.

At the session of Congress in the previous year, when the opposition were throwing themselves upon our foreign relations, delighted to abandon the financial questions where they had suffered such defeat, Hamilton, with the fixed purpose that the attacks upon his character should not rest where they were, demanded further investigation. The most searching scrutiny was of no avail, and the opposition were more than ever disgusted with their mistake. After the lapse of another year Hamilton put the finishing touch to the funding system by a comprehensive scheme for the redemption of the entire debt. While this measure was on its passage, and after the galling results to the opposition of their investigation were well known, he laid down his office and retired from public life. He had been for some time contemplating this step, which had become imperative on account of his private affairs, and of the absolute need of an increased income to provide for his large family. He had been in office for nearly six years, and his work was done, his opinions and his personality were in

delibly impressed upon our frame of govern ment and upon our political development. We look in vain for a man who, in an equal space of time, has produced such direct and lasting effects upon our institutions and history.

CHAPTER IX.

THE JAY TREATY AND THE ADAMS ADMINISTRATION.

If anything could have kept Hamilton in the cabinet it would have been a knowledge of the crisis which was to arise upon the reception of the Jay treaty. He was, of course, well aware of the fierce opposition excited by the creation of the mission; he knew of the public meetings, of the ravings of extreme Democrats, both in the newspapers and on the platform, and of the burnings in effigy of the excellent and eminent ambassador. But he regarded all these things as temporary ebullitions, which, as he foresaw, died away into quiet while Jay was carrying on his negotiations with Lord Grenville. Hamilton perceived, too, that, apart from the outward manifestations, there was a profound interest in the result of Jay's mission, and that there would be a party conflict over its ratification. At the same time he certainly did not anticipate that such a shock would be produced as that which actually occurred when the contents of the treaty became known. But then Hamilton did

not expect such a result from the special mission. Rumor, speaking to us in the person of Jefferson, says that Hamilton called it an "old woman's treaty," when he first read it. To his penetrating mind and bold, dashing temperament, it may well have seemed that such an epithet was just. The treaty was certainly not such a one as he himself would have made. But he was called upon to deal with it as it stood, and on the broad ground of whether it should be accepted with all its defects, or rejected in favor of almost certain war.

The treaty went to the Senate, was ratified there, except the highly objectionable prohibitory clause in the twelfth article, and then went back to the President for final decision. Through the closed doors of the Senate the treaty slipped out, and was soon public property. When it became known, there was an outburst of popular indignation which has hardly ever been equalled in the history of the country. The wrath excited was partly justifiable, for some of the stipulations were far from what had been reasonably expected, and the fire was assiduously fanned by the partisans of France. The people judged hastily, and, in large measure, without reflection. The tempest swept through the country, accompanied with violent denunciation, insults to the Brit-

ish flag, rioting, burning in effigy, and every species of wild disorder; even the sturdy Federalist States of New England were swept from their moorings, and joined in the general outcry.

In the midst of all the hurly-burly stood the grand figure of Washington, calm, watchful, unterrified, making up his mind silently, and with "truth only for his guide." Here and there a few of the coolest and wisest among the Federalists saw the necessity of ratification and of standing by the President, and with their accustomed boldness and ability they faced the apparently hopeless odds arrayed against them. Foremost among them was Hamilton, ever present where the fray was thickest, and always first to come forward when a fight, especially if it was a desperate one, was in progress. He appeared at a great public meeting in New York to endeavor to check the raging opposition by fair discussion. Debate then and there was out of the question. Persuasive eloquence had for the moment lost its charm, and when Hamilton began to speak he was howled down and assailed with a volley of stones, one of which struck him on the forehead. With perfect coolness he said, "If you use such striking arguments, I must retire," and withdrew from a contest which at the moment was hopeless. But

he retreated only to enter another field. Four days after he had been stoned appeared the first number of the series of essays signed "Camillus," in defence of the treaty, in favor of the neutrality and peace policy, and in support of the administration.

These essays continued to appear for a year, and until the weight of public opinion was once more on the side of their author. "Camillus" was singularly effective, and the best proof of his power came from his adversaries. Jefferson was particularly disturbed. He felt very keenly the truth of Burr's remark, that any one who put himself on paper with Hamilton was lost. At the same time he was willing and even anxious that some one else should run the risk of wreck in a conflict with "the Colossus of the Federalists," and he therefore urged the unattractive duty upon Madison. That gentleman, however, had as little stomach for the fight as his chief, and prudently held back. Others less able and less wary than their leaders entered the field with replies of various merit and various classical signatures, and were beaten and driven off. Whatever may be said of Hamilton in other respects, in political controversy, in the art of moulding, creating, and controlling public opinion by discussion and debate in the newspapers, he stood absolutely

without a rival. Ready, persuasive, transparent in reasoning, and formidable in retort, he never failed, when he took up his pen, to create a profound impression or to sway the minds of thinking men, and he never, except in the "Federalist," worked under greater difficulties nor with greater success than when he entered the lists as "Camillus."

But when Hamilton first began to write the clouds had gathered thick and black; it seemed as if the popular rage would infallibly lead to war, and in order to make the position of the President still more difficult England, with her customary stupidity, seized that moment to renew the obnoxious provision order. This gave pain even to those most anxious for peace. To Hamilton it seemed intolerable; to Washington hardly to be endured. Outraged by the nation with which he was seeking to make peace, with his own party demoralized and hushed, and with the opposition in full cry urging on the popular clamor, the President faced the great question. With that high, serene, silent courage which he always showed, whether in the shock of unsuccessful battle or in the din of hostile politics, Washington deliberated. He would do his duty, — that was a matter of course. As to what that duty was, he felt but little doubt. But with the almost painfu.

sense of justice and responsibility which always characterized him, Washington wished to know all sides. He consulted but few persons, and among those few Hamilton was first, as much so as if he had never left the cabinet. Hamilton on his side responded as fully and zealously as if he were still the President's Secretary. He inclined to an attempt for further negotiation, and advised a refusal to exchange ratifications unless the provision order should be rescinded. On the general principle that the treaty, which meant peace on honorable if not on advantageous terms, was better than war, he sympathized with Washington. At Washington's request he drew up a summary of the arguments on both sides with that clearness in appreciating all points in a case which made him such a valued adviser to a man summoned to give a grave decision. He was disposed, on the whole, to be rather more aggressive and less sacrificing than Washington, as was natural to his temperament, but when the President finally acted, ratified the treaty, and sent it to England with a sharp remonstrance against the provision order, Hamilton fully sustained him. In all the struggle which followed in repelling attacks on the administration, and during the fierce contest over the treaty in the House, he played the same leading part. He was the

trusted counsellor of Washington, the adviser of the party leaders, and the man to whom all the most active Federalists turned for suggestions, for arguments and for unfailing aid by tongue and pen, in letters and through the press.

While Hamilton was occupying this important and influential position in the party and before the country, the Presidential election came on. Washington had withdrawn from the field, and the serious problem of selecting a candidate for the succession confronted the Federalists. They faced this question for the first time, and on the result, as after events showed, the fate of the party largely depended. There were four men from whom the choice, as it seemed at the time, must be made, — Hamilton, Adams, Jay, and Thomas Pinckney of South Carolina. Hamilton was the head of the Federalists, but he was the leader of the leaders rather than of the party. He never had a strong hold on the people, or on the rank and file even of his own party. Moreover, he was the man most hated and feared by the opposition. He was the incarnation of the whole Federalist policy from the foundation of the government, and as a candidate he would have aroused enmities too fierce to have permitted his election. This was plainly seen, and by no

one more plainly than by Hamilton himself, for there is no evidence that he ever gave the idea of securing the Federalist nomination for the Presidency serious consideration, or was influenced by it for a moment. Jay's name was so closely associated with the conflict of the treaty as to put him, too, out of the lists. Pinckney was well known and popular, especially on account of the brilliant success of his treaty with Spain, but he was a new man and a southerner, and the Federalist strongholds were in the North. There remained John Adams, who was, with the exception of Hamilton, the most conspicuous man in the party, and he had had a long and distinguished career. He contended with Hamilton, also, for the perilous honor of being the chief mark for the concentrated dislike of the opposition. But he was, on the other hand, still revered for eminent services in the Revolution, his name still awakened the memories of the great conflict for independence, and he had in this way a hold upon the body of the party and upon the popular imagination. Moreover, he was a northern man and in the line of promotion.

It was therefore determined by the party leaders to vote for Adams and Pinckney for the first and second offices respectively; a wise conclusion, which made what would, in the lan-

guage of to-day, be called a "strong ticket." Unfortunately the constitution did not then admit of a "ticket." The person receiving the highest number of votes was President, the next highest Vice-President. This opened the door to an infinite amount of management and intrigue in the electoral colleges. The Federalists were well aware that their chance of success was narrow, and that no votes could be spared. Hamilton's views were simple enough. He wished first to hold the administration in the party, and then to win the second place for a Federalist and exclude Jefferson. To do this he urged upon all his friends the policy of voting strictly for both Adams and Pinckney, and of throwing no votes away. In so doing he was right, clearly and beyond all question. The departure from this policy elected Jefferson to the second place. By its adoption two contingencies were possible: either Adams and Pinckney would receive an equal number of votes, which would throw the decision into the House of Representatives, and probably give the election to Adams; or — and this was the hypothesis fatal to the scheme — the South would throw away their votes for Adams and make Pinckney President. To this latter contingency Hamilton was indifferent. Indeed, it is pretty clear that he preferred Pinckney, because he

felt that he would then continue to be the controlling influence with the administration, while his observation had led him to suspect that the reverse would probably be the case under Adams. In letting his preference for Pinckney, or rather his indifference of choice as between Pinckney and Adams, be known, Hamilton made a mistake. As the principal leader of the party he was bound to sink personal preferences and support the choice of the party for the first place without any reservation, and he should have put the plan of voting equally for both candidates, solely on the ground of party success, treating the possible election of Pinckney as a thing never to be considered, much less viewed with indifference. How far Hamilton's position injured his own policy of voting it would now be difficult to say. The plan was doomed to defeat, because South Carolina would not vote for a northern man, a fact of which New England, unluckily, was well aware. The result was, that both sections threw away votes, electing Adams by a bare plurality of three, and defeating Pinckney, bringing about exactly the mischief Hamilton had striven so earnestly to prevent, the choice of Jefferson as Vice-President.

When Adams was inaugurated the situation was both novel and difficult. Adams, unlike

Washington, was elected by a party and strictly as a party man. He was by virtue of his office the head of the party *de jure*. But despite the President's hold upon the people, Hamilton, owing to his brilliant services and his predominant influence with almost all the party leaders, was the head of the Federalists *de facto*. On the relations existing between these two men, therefore, the welfare of the party largely depended. Both Adams and Hamilton were honestly anxious for the success of their party, for the well-being and advancement of their country, and for the maintenance of the cardinal principles of Washington's administration. Unfortunately they entered upon this new and trying period in the career of their party with feelings of coolness, if not of mutual distrust. Hamilton had taken votes from Adams at the first election to make sure that the selection of Washington for the first place should not be endangered. In the years which followed, Adams gave a sturdy and often decisive support to the treasury measures and to the general policy of the administration, so that at the second election he received Hamilton's hearty support for the Vice-Presidency, and their relations were then cordial. In the third election Adams was aware of Hamilton's policy of equal voting, which he hastily attributed to nothing but the

latter's preference for Pinckney. This revived the memory of the first election, and Adams quickly set down the whole thing as one long continued and jealous intrigue. Hamilton had erred at the first election by taking doubtful action for which there was no occasion. His policy at the last was wise and right, but he made the mistake of not burying his personal preferences and keeping them out of sight.

When Adams came to the head of the government he regarded Hamilton as guilty of the almost unpardonable sin of want of respect toward himself, as prone to intrigue, grasping, dictatorial, and of great power in the party. Hamilton, on his side, thought Adams unreasonable, unmanageable, at times wrong-headed, in short, unsafe; and he had unfortunately been at very little pains in the recent past to conceal these opinions. Hamilton had gone out of office in good faith and he had no desire to regain it, but he had a profound interest in the fate of the Federalist policy which had made the union, and which was so largely the work of his own hands. He, therefore, was anxious to retain his influence with the administration and his power in the party. His position entitled him to confidence and consultation, and he was by no means a difficult counsellor, nor anxious to absorb all credit to himself. If the work was

well done Hamilton cared little who did it. When on one or two occasions he grasped at the ensigns of command, it was because he honestly believed that he was the only man fit to bear their weight. He was a severe and penetrating critic, but he was neither jealous nor captious. It was perfectly easy to manage Hamilton and win his cordial support. Washington had never found the slightest difficulty in dealing with him in or out of office. All that was required was tact, full and frank consultation, and the deference to which his opinions were on every ground entitled.

Tact in managing men, however, was conspicuous in John Adams chiefly by its absence. Fear did not enter into his composition, and he was sure to do what he believed to be right at all hazards, but he could not be right gracefully and with address. Every dictate of prudence and of party obligation bound him to consult Hamilton, and yet he undertook to ignore him first and crush him afterwards. Hamilton, on his part, when he found that the President was prejudiced against him, and bolted wildly at the thought of being influenced by him, should have supported the administration when he could, and if his advice openly offered was neglected should have remained passive so long as he could consistently remain in the party. This

would have been not only wise, but dignified and in keeping with his position, and it would not have concealed his opinions or diminished their due weight with the party at large. Unfortunately such a course required very great self-control, which was difficult to Hamilton's imperious and energetic nature. Instead of either leaving Mr. Adams alone or openly resisting him in the party, he undertook to force the President's hand, through his power over the cabinet and the leaders in Congress. The result of such relations between these two chiefs was certain to cause an open breach as soon as they differed in policy, and equally sure to produce disaster to the party.

Washington had settled the English question. Danger in that quarter was removed, and the means employed to effect the removal were one fruitful cause of peril in another direction. In proportion as our relations with England improved those with France grew worse. Mr. Monroe, after a career of light-headed mischief unparalleled in our diplomatic history, had finally been recalled from France. Mr. Charles Pinckney had been sent in his stead, and had been refused a reception. With matters in this state and on the heels of a savage controversy with the French minister, Mr. Adams took the helm. The country was again on the verge of

war, and the first question which confronted the administration was the settlement of this difficulty. The question was whether we should stand upon our dignity and prepare at once for war, or make another effort for peace.

The decision of this question brought to light the existence of a third faction which agreed neither with Hamilton nor Adams, although in general sympathy with the former. Its representative and most active leader was Colonel Pickering, the Secretary of State, and it found its principal support among the Federalists of New England. Hamilton regarded the French republic with unqualified dislike and distrust. He believed that the war they were then waging was directed against everything he held most precious, against constitutional liberty, law, order, and society. At the same time he was too much of a statesman not to perceive that war ought to be avoided by us if it was possible, and that the policy which he had advocated with reference to England should also be pursued toward France. The cabinet faction, going beyond Hamilton in their hatred of French principles, believed that the sooner we were committed to open hostilities with the great republic and all that it represented the better. Adams, however, took the same view as Hamilton, and the policy of sending three special

peace commissioners prevailed. Before the force of the united opinion of the two chief leaders all factions were powerless, and this shows only too plainly the terrible blunder made by Adams, in not making it his first object to consult with Hamilton, and act in conjunction with him. So far all went well; but on the composition of the commission, which was of deep political importance in any event, and which in case of war was sure to be of the greatest moment in its effect upon public opinion, Adams and Hamilton parted company.

All were agreed that Pinckney must be one of the three commissioners, and that the commission ought to consist of two Federalists and one Democrat. Pinckney represented the South, and Hamilton wished that the other Federalist should be taken from the North, and that the Democrat should be Madison or even Jefferson, — in other words a leading Virginian and Democrat who was widely known and personally respected by all parties, a "character," as Hamilton expressed it, "in whom France and the opposition had full reliance." Adams, carried away by the suspicion that an attempt was being made to force upon him a nomination from the Hamiltonian faction in New England, took Marshall, from Virginia, and Gerry, as the Democrat, from Massachusetts. To take both

Federalists from the South, where the party had no strength, was hardly wise, but to take a northern Democrat in place of Madison, especially a man of Gerry's slender abilities, was a most serious blunder. Gerry brought discredit on the mission by his weakness and over-confidence, and produced a good deal of mischief, although it may be questioned whether he affected materially the general result. His appointment was not only a poor one in itself, but it had a bad effect at home, exasperated the feeling in certain quarters against the President, was generally considered injudicious, and caused Adams much subsequent annoyance. The general policy of Washington's time was, however, maintained. As in the case of Jay, Hamilton was for very stiff instructions, at first almost unreasonably so, and as in the former instance, milder counsels prevailed, and the envoys went forth upon their mission.

The result is well known. The commissioners were insulted and outraged in every possible way. They were improperly received; and when attempts to bully and bribe had failed to sway them they were driven from France. To the opposition clamoring for information about the negotiation with their beloved France, Mr. Adams sent in the famous X. Y. Z. correspondence The mixture of swindling and browbeating

thus disclosed, heightened as it was by news of a decree far surpassing its predecessors in defiance of neutral rights, and by the burning of one of our vessels by a French privateer, lighted up a hot flame of indignation which swept rapidly and fiercely over the country, setting it ablaze with the spirit of war.

This exposure utterly discredited also the party of the opposition friendly to France and broke them down completely. One by one they slipped away from Congress where they had a majority, leaving the undaunted Gallatin to face not merely defeat, but what seemed to be disgrace. Jefferson, with a discomfited whine, bowed before the storm, and even Giles is said for the moment to have lost a little of his usual rough effrontery. With the Federalists of course everything was just the reverse. Enthusiastic addresses poured in upon the President, who responded to them with equal fervor, and in a most spirited manner. In the press, and at public meetings, men rivalled each other in denunciation of France. War vessels were fitted out by private subscription and presented to the government; and Marshall, returning to be received with fêtes and banquets, raised the public wrath to a still higher pitch. The Federalists carried rapidly all the strong measures of defence which they deemed essential — a provi-

sional army and an increase of troops, of fortifications, and of the navy. At the next general election they triumphed, and found themselves in possession for the first time of a strong majority. The conduct of France raised them to the zenith of their power, but it was of short duration, and their strength brought with it the events which reduced them soon after to utter ruin. The first result was the fight made by the President against the appointment of Hamilton to the command of the provisional army.

Washington was selected as commander-in-chief, and consented to serve, provided he should not take an active part until the army should be actually in the field, and provided further that he should have the choice of the officers who were to be next him in rank and to act as his staff. Washington was clearly of opinion that the army ought to be constituted *de novo*, and that there should be no question of revolutionary rank. He accordingly sent to the President a list of major-generals, in the following order: Hamilton, Charles Pinckney, and Knox. This gave the practical command and the work of organization to Hamilton. Mr. Adams sent Washington's name at once to the Senate, and then the major-generals in the order prescribed by Washington. This done, he wheeled about when it came to signing the commissions, and

took the ground that Knox was the senior officer on account of his revolutionary rank. He disregarded the fact that by the precedents of the Congress of the confederacy officers ranked in the order of their confirmation. He refused to admit that Hamilton was the man best fitted for the post, and was so considered by the public; he plunged himself and his party into a bitter personal quarrel, and all because he disliked Hamilton, and was enraged at the opposition of the cabinet to himself.

The President's course led to an immediate and desperate struggle. Not only the cabinet, but all the leading Federalists, urged upon him the adoption of Washington's list. He alienated Knox from Hamilton, who was a friend of long standing, and ultimately caused the former's resignation, while Pinckney on his return fully admitted the propriety of the appointments, and cheerfully took service in the rank assigned by Washington. The pressure of opinion upon the President grew stronger constantly, and yet although he writhed a good deal in anger, he seemed to become more fixed in his purpose. The Federalist leaders, deeply alarmed, turned to Mount Vernon for assistance. In unmistakable language Washington told Adams that if the agreement made between them was not adhered to he should resign. Adams was a

bold and stubborn man, but he dared not face the displeasure of Washington and the consequences of his resignation on such a question. In bitterness of spirit he gave way, and appointed Hamilton to the first place, and the sense of defeat changed keen dislike to an almost venomous hatred of the man whom he chose to think his rival. The conduct of Adams in this whole affair is utterly indefensible. There is not a single valid reason for the course he took. From a personal feeling he brought on a bitter, senseless, and perfectly futile quarrel, weakened the party and himself, and all because he disliked the man who happened to be best fitted for the command of the army. No adverse criticism can be made upon Hamilton, except that while at first he quietly accepted the situation to which he was called by Washington and the party, after the contest over his appointment began, he exhibited a rather disagreeable and aggressive self-assertion common enough in men of great abilities and commanding wills, and from which he was on rare occasions not wholly free. Thus the appointment was finally made, leaving a legacy of heart-burning, a memory of compulsion and defeat on one side, and of injustice and triumph on the other.

With his accustomed zeal, Hamilton at once threw himself into his new work, and gave him

self up to it heart and soul. His task was that of organization and preparation, for which he had a peculiar genius, and it is needless to say that his work was of the best. He was first called upon to draft a plan for the fortification of the harbor of New York and superintend its execution, funds having been appropriated by the State for that purpose. This was somewhat outside the regular path of his duty, but he gave it his attention and made the necessary arrangements. Soon after he met Washington and Pinckney at Philadelphia and drew up a scheme which Washington adopted for the apportionment of officers and men among the States, for a recruiting system, and for supplies, arsenals, camp equipages, and ordnance. In a second paper, likewise accepted by Washington, he laid out a plan for the organization of the army, in which he dealt with the questions of pay, uniforms, rations, rank, promotion, field exercise, regulation of barracks, the police of garrisons and camps, and the issue of arms, clothing, and fuel. These elaborate suggestions were necessarily hasty, but they exhibit great familiarity with the various subjects, fertility of resource, and broad and comprehensive views. They received the highest proof of their value in gaining the approval of Washington, the best and most experienced soldier of the day.

When Congress assembled, Hamilton sent to the Senate a bill which became law and was entitled, "An Act for the better organizing of the troops of the United States." This measure changed as little as possible the existing system, dealing chiefly with the proportion to be established between the number of officers and of men. Hamilton's purpose was to make a "fundamental arrangement," so that in the future the existing system could be increased or diminished at will without altering the form of organization. He also drafted a bill for a "Medical Establishment," and devised plans for the classification and organization of the militia for trade with the Indians and for military supplies, and from time to time he issued circulars to the army to check intemperance, duelling, and desertion, and to promote discipline. McHenry, in fact, turned to Hamilton for instructions on every point connected with the War Department, while Stoddert and Wolcott sought his advice in an almost equal degree as to the policy to be pursued with regard to the Navy and the Treasury. In the spring of 1799 he made every necessary arrangement for the invasion of Louisiana and the Floridas. He also prepared a scheme for the establishment and maintenance of frontier posts, and devoted much time and attention to the fortification of

New York. Hamilton's bills for organization, for the Medical Establishment, and for the eventual augmentation of the army, all became laws, but the work of actual recruiting was constantly delayed, until at last after the departure of the second peace commission it became obvious that there would be no war, and all active measures gradually ceased. Hamilton's military services at this time went no farther than the elaboration of plans and the work of preparation; the only lasting result of his labors being the establishment of the West Point Academy a few years later in general conformity with his suggestions. Hamilton in all these matters exhibited, however, not only his usual energetic and indefatigable industry and his readiness in dealing with a wide range of topics, but he showed that he possessed in a high degree the military attributes of foresight, breadth of view, knowledge of details, and great capacity for organization. Whether if he had been called into actual service he would have displayed in equal measure the still more important qualities which are essential to a successful general in an active campaign and on the field of battle, must remain mere conjecture. This much is certain, that he did the best that was possible in all that fell to him to do, and that his strong hand was felt in all departments of

the government in regard to everything relating to the war policy of the United States.

But while Hamilton was devoting himself to these laborious duties, he was working out in his usual manner detailed and comprehensive plans for the general conduct of the war. He saw that there would be no battles to fight with France in the East, and he was convinced that the only way to reach her was through the sides of her ally, Spain. He therefore designed to wrest from the latter power the region of the extreme Southwest, and give to the United States final and complete control of the great valley of the Mississippi. These ideas were of long standing and were part of that conception of nationality and of national greatness which was the predominating influence in Hamilton's public career. The last resolution which he had introduced in the Congress of the confederation declared the "navigation of the Mississippi to be a clear and essential right and to be supported as such." A few years later he had said in the cabinet that the free use of that river was "essential to the unity of the empire." In 1798 he urged upon Pickering the necessity of getting possession of Louisiana and the Floridas, and in the following year he wrote: "I have been long in the habit of considering the acquisition of those countries as essential to the permanency of the Union."

It seemed now as if the moment had come when these theories might be put into execution, and it is no wonder that they were uppermost in Hamilton's thoughts. Both from a political and military point of view he was right. The national and imperial instincts of his nature did not mislead him. The Mississippi and the great regions of the Southwest were essential to union and empire. The future has justified him, and in no single point has it shown more strikingly the range of Hamilton's vision as a statesman and the force and penetration of his mind. By one of the strange but not uncommon contradictions which we meet with in human history, it fell to the lot of Hamilton's keenest foe to carry out the most imperial part of the great Federalist's national policy. It was reserved to Jefferson to acquire by purchase, and in defiance of the constitution, the vast territory which Hamilton planned only a few years before to win by arms. The accomplishment of the work fell to other hands, but the conception was Hamilton's, and it was he who first formulated the brilliant scheme, and after years of waiting devised means which would have assured success.

Besides the control of the Mississippi and the conquest of the Southwest there had long been in Hamilton's mind still another idea which,

while national in its origin, was intended rather to increase the power of the United States than to strengthen their union. "Our situation," he wrote in "The Federalist," "invites, and our situation prompts us to aim at an ascendant in American affairs." We were to be dominant in the western hemisphere. We were not only to be neutral as to the affairs of Europe, but we were to exact from Europe neutrality in all regarding America and were to crush out European influence. Here is the Monroe doctrine in its widest scope, and with such notions long cherished and while he was revolving these plans for the acquisition of Louisiana, it is no wonder that Hamilton's imagination was touched by the schemes of the Spanish adventurer Miranda. He began to believe that the time had come for conquests beyond the Mississippi which should result in the liberation of the Central and even of the South American States, and in the establishment of republics in those regions.

Miranda had been long engaged in these schemes and had already endeavored to enlist England as an ally. He now wished to have England and the United States unite and undertake the overthrow of the Spanish power in South America. This fell in with the Federalist longing to join all decent people in a crusade against the hated French republic. Such an

alliance would insure the ruin of Spain, the tool of France, the closing of the South American ports to French privateers, and great acquisition of territory to the United States. It was, in case of war with France, both a wise and sufficiently practicable policy, and it is no wonder that Hamilton thought it worth consideration by the government, and at all events judged that it was well to be informed as to the progress of such a movement. He therefore sought to interest the government in Miranda, and no doubt gave undue importance to that soldier of fortune; but his own campaign was that of a great general and a far-seeing statesman. Military glory appealed strongly to a sweeping intellect and powerful nature like Hamilton's, and we may readily believe that he dreamed of extensive conquests and great deeds of arms. That he thought the opportunity likely to come at that moment is more than doubtful. It is certain that it never affected his public course, and that he never aimed at anything which, however it might redound to his own fame, went beyond an extension and consolidation of the power of the United States. The theory that his mind teemed with visions of empire and of military power in the Napoleonic fashion, schemes fraught with danger and perhaps despotism, is due to the heated and hostile mind of

Mr. Adams. Hamilton was not only extremely guarded in his correspondence with Miranda, to whom he said that "he could personally have no participation in his plan unless patronized by the government of the United States," but he was also in consultation with Rufus King, our cautious minister to England. Throughout he scrupulously avoided doing or saying anything which could by any possibility give ground for the suspicion that he was taking part in the schemes of an adventurer without the assent of his government. The plan appealed to his strongest instincts as a statesman and soldier, and fired his imagination. It was, too, not unreasonable, and in the event of war Hamilton determined to be in a position to take every advantage of such brilliant possibilities.

But while Hamilton gave himself up to the onerous duties immediately before him, his dreams and aspirations, if he had any, came to a speedy end. The popular indignation and the hearty support of the administration, the bold attitude of the United States, and the fighting qualities of our little navy, already striking telling blows at the French privateers and men-of-war, all impressed France with the fact that she had aroused a nation out of reach of her armies, and capable of becoming a very formidable adversary. The worthy Talleyrand ac-

cordingly began to cast about for some means by which he could reëstablish friendly relations, at the lowest possible cost to the pockets and the feelings of the French people and of himself. By circuitous channels, but in direct terms, he conveyed to Mr. Adams the fact that the government would be glad to receive an American envoy with all the respect and honor to which he was entitled. Acting on this information, and without a word to any one, not even to his cabinet, the President sent in the nomination of Mr. Vans Murray to be minister to France.

There can be no doubt that honorable peace was then, as in Washington's time, the paramount consideration. Whether it was wise to snap at the very first opportunity held out by France is more questionable. John Adams certainly believed it to be so, but his haste, secrecy, and the abrupt change from his recent utterances, make it impossible not to suppose that one strong motive for this sudden action was to be found in his belief that peace would cripple the war party, including Hamilton, and all others who differed with him. But admitting that John Adams was not only right in principle but also in the selection of the moment for making peace, yet his mode of doing right was utterly and hopelessly wrong. If his cabinet agreed with him, then concealment was useless;

if they were certain to oppose him, then concealment may have been shrewd and cunning; but it was neither very wise nor very brave. In any event, it rent asunder hopelessly the already distracted Federalists. It fell upon the unsuspecting party with the suddenness of a bolt of lightning. They were stunned by the shock, and their first thought was to defeat the President in the Senate, and to break down him and his policy together. These were the views of men who believed a war with France to be a good thing in itself, because it was the only sure salvation from the pestilent ideas of Paris. They would have had us ally ourselves with England, because it behooved all decent people throughout the world to stand together and stamp out the monstrous doctrines of the French revolution.

No man hated those doctrines and principles more fervently than Hamilton, and no one sacrificed more than he to opposition to the propaganda of unbridled democracy and consequent anarchy. But, except on one or two occasions, the statesman always prevailed with Hamilton. Except in the case of a common war against France when the results would bring vast and immediate benefits to the United States, he had no mind for an alliance with England, much as he applauded her as the defender of society. He

was, on the contrary, disposed to be cool toward her because, with a stupidity really exquisite, she had begun, just as we were embroiled with France, once more to annoy and provoke us with outrageous orders in council. Hamilton's general policy, therefore, was the maintenance of a strong dignified attitude, backed by armed men and ships, and then a quiet waiting until France should come to her senses and send a minister to us. He never believed war to be a good thing in itself, as did some of his more extreme partisans, who were as headstrong and unruly in their way as the President was in his; but he regarded peace now and always as the first object. In this he was not only wise but consistent with his past. At the same time the sudden change of Adams, his eager grasp at the earliest symptom of returning decency in the French government, disappointed and angered Hamilton as a hasty, needless step, and an uncalled-for sacrifice of a dignity which might have been scrupulously maintained and much enhanced without endangering a speedy and lasting peace. His wrath was still further kindled by the foolish and offensive method of action adopted by the President.

But even in bitterness and anger the statesman was still uppermost. Hamilton may not have been the idol of the masses, nor a skilful

manager of men; but there was one set of men whom he knew thoroughly, and those were the leaders of his own party. He knew them to be capable of becoming very dangerous, and he saw them now on the point of rising upon the President and beating him and the party to the earth together. Checking his own feelings, but without attempting to conceal his indignation, he took the ground with the Federalists at Philadelphia, that peace with honor was now, as always, our first object, and that this step toward it, however unwisely it had been taken, was nevertheless beyond recall. The true policy now was to make the best of what had been done, and treat for peace as it should be treated for. To send Murray alone was absurd; it was the idea of a man blinded with haste and anger. Let a suitable commission be chosen and sent, if circumstances still continued favorable. The party leaders fell in with Hamilton's views, and Adams himself becoming aware of the error of committing this charge to Murray alone, a strong commission was nominated and confirmed. It is hardly too much to say that Hamilton's prompt decision, his wisdom and statesmanship, saved the party at this moment from an immediate wreck, which he might very readily and naturally have precipitated.

There was some delay in sending the commissioners, owing to the unsettled state of France, and then came another revolution, which led the Federalists to believe that there ought to be a further suspension of the embassy. Hamilton even went to Trenton to urge delay; but Adams, irritated beyond endurance by the stubborn and exasperating resistance of the war party, as represented by his secretaries, treated counsel and opposition alike with contempt, and ordered the envoys away. Thus ended the first great struggle over our relations with France. Taken as a whole, from the arrival of Genet to the departure of this last commission which effected a treaty, the Federalist policy had been a masterpiece at once bold and sagacious, and one from which the country reaped great and lasting benefit. But behind the fair exterior of success was the triumphant party torn with bitter dissensions, which were sapping its life even in the moment of victory.

In another direction the policy of the Federalists, although giving rise to no quarrels, but meeting, on the contrary, with general approval in the party, became the most efficient cause of their subsequent ruin. The publication of the X. Y. Z. letters, and the flight of members of the opposition from the House of Representatives, left absolute control with the

Federalists. They had been accustomed to winning battle after battle, but they had always been in the minority, and the want of numbers was a severe and wholesome discipline which cultivated in that party a prudence to which by nature they were not much given. An absolute majority and the irresistible rise of public opinion against France turned their heads. They did not lose their wits, but they became more masterful and overbearing than ever. They rapidly pushed through bills for an army, a navy, and fortifications, as well as a naturalization law which required fourteen years' residence, many of them urging the refusal of citizenship to foreigners altogether. So far no harm had been done; but they next resolved to strike at the vile libels which had been poured forth by the opposition press upon Washington, and upon every other honored name, and at the foreigners who wrote the libels or propagated French doctrines and set agitation on foot. With this object they enacted the famous alien and sedition laws. In their first draft these laws were intolerable. The Federalists in Congress were guided by the members of the extreme war party, and were now in a very rash mood, so that Hamilton was much alarmed by these bills, and wrote urgently in favor of modifications. Of the alien

act, and the mode of its execution, he said, "Let us not be cruel or violent." In the first draft of the sedition act he saw danger of civil war, and said, "Let us not establish a tyranny. Energy is a very different thing from violence." This was the language of a statesman. But when the laws were modified and passed, they and the principles which they involved received Hamilton's entire support.

There has been a general effort on the part of biographers to clear their respective heroes from all responsibility for these ill-fated measures. The truth is, that they had the full support of the congressmen and senators who passed them, of the President who signed them, and of the leaders in the States, who almost all believed in them; and they also met with very general acceptance by the party in the North. Hamilton went as far in the direction of sustaining the principle of these laws as any one. He had too acute a mind to believe with many of the staunch Federalist divines of New England, that Jefferson and Madison were Marats and Robespierres, and that their followers were Jacobins who, when they came to power, were ready for the overthrow of religion and society, and were prepared to set up a guillotine and pour out blood in the waste places of the federal city. But he did believe, and so wrote to

Washington, after the appearance of the X. Y. Z. letters, that there was a party in the country ready to "new model" the constitution on French principles, to form an offensive and defensive alliance with France, and make the United States a French province. He felt, in short, that there was a party in America ready for confiscation and social confusion. A year later, in 1799, he wrote to Dayton, the speaker of the national House of Representatives, a long letter, in which he set forth very clearly the policy which he felt ought to be pursued. He wished to give strength to the government, and increase centralization by every means, by an extension of the national judiciary, a liberal system of internal improvements, an increased and abundant revenue, an enlargement of the army and navy, permanence in the laws for the volunteer army, extension of the powers of the general government, subdivision of the States as soon as practicable, and finally, a strong sedition law, and the power to banish aliens. This was what was termed at that day a "strong and spirited" policy; it would now be called repressive, but by whatever name it is designated, it was the policy of Hamilton, and is characteristic of both his talents and temperament. Except as to the subdivision of States, it was carried out pretty thoroughly in all its main features by the Federalists.

The alien and sedition laws, although resisted in Congress, did not much affect public opinion at the elections which immediately ensued, and the Federalists came into the next Congress with a large majority. Numbers, however, availed them little. In the worst days of their minority period they were more effective as a party. The jealousies and quarrels already on foot came to a fierce culmination on the appointment of the second mission to France. The moderate Federalists of the South, headed by Marshall, sustained the President, while the war party urged his destruction. It was a house divided against itself and at a time when violent measures had so lessened the great advantages of the last election that the Federalists entered upon the Presidential campaign with but a narrow margin for success. Jefferson sounded the alarm in the famous Kentucky resolutions. The doctrine was bad enough, but it was probably merely intended to attract attention to the rapid development of power on the part of the central government. The resolutions of both Kentucky and Virginia were received with little favor anywhere, and in many States with strong and formal reprobation. Hamilton, more deeply stirred by a movement for disunion than he could be by anything else, regarded these resolutions as of great gravity

and urged that they be formally disapproved by Congress and their evil tendencies fully displayed.

Jefferson, however, had achieved his purpose. The suspicions of the country were awakened to the meaning and possible results of such legislation as the alien and sedition acts, and to the centralizing policy of the Federalists. The approach of peace, moreover, relaxed the spirit which had rallied the masses to the side of the Federalists as the defenders of the national honor. Slowly, but surely, the dominant party was losing ground in public opinion. Pennsylvania slipped from them at the state election, and this made a victory in New York of the very last importance. Hamilton threw himself into the struggle with an energy and fire great even for him. But he was now opposed to one who was the first and by no means the least in a long list of men, some of great ability and distinction, who have risen to power and place largely by capacity for guiding the dark and complicated intrigues of New York politics. In these Aaron Burr was a master. The election turned largely on the result in the city, and in ward politics Hamilton was no match for his antagonist. Hamilton could neither trade, bargain, nor deal with petty factions. Such work was unworthy of his powerful intellect,

and the sacrifice did not even bring the poor reward of success. With voice and pen Hamilton maintained the conflict. His eloquence was unrivalled, his arguments, written and spoken, were unanswerable, but Burr had the votes. New York was lost to the Federalists and ruin stared them in the face.

In the bitterness and passion of defeat Hamilton proposed to Governor Jay to call together the old legislature and give the choice of presidential electors to districts, thus dividing the vote of New York, which would otherwise be settled by the incoming legislature, who would choose none but Democrats. Jay, very frankly, declined to consider the scheme, as one wholly improper. The proposition was, in fact, nothing less than to commit, under the forms of law, a fraud, which would set aside the expressed will of a majority of the voters in the State. This is the one dark blot upon the public career of Hamilton. It is no palliation to say that he was urged to it by the Federalist members of Congress. The error of a great leader cannot be excused by saying that lesser men advised him to it. Many times before Hamilton had stepped in boldly and had effectually checked the rash and headstrong impulses of his more extreme friends at Philadelphia. He now fell in with them in support of this high-handed

measure. It was he who advised it with Jay, it was he who urged its prosecution, and on his shoulders must rest the responsibility. Hamilton was too clear-sighted even then to attempt to disguise the character of the scheme. He says plainly to Jay, we must not be "overscrupulous," and then adduces a great many lucid and ingenious reasons to show that this is a time when to do a great right one is justified in doing a little wrong. Arguments on that side of the question were not wanting; they never are to the champions of order, the saviours of society, the "strong men," and the imperialists of this world. That Hamilton was carried away by a passion of disappointment when he wrote this letter, is no doubt true, but the root of the matter lay still deeper. The bitterness of defeat and the readiness to use violent means to recover lost ground sprang from the belief fostered and developed in Hamilton's mind by the French revolution, that there was a party in this country of democracy, license, and anarchy, that its victory meant ruin to the state, and that salvation could only be assured by the continuance in power of the party of order and Federalism. This frame of mind is not uncommon in the history of party conflicts, but in the days of the "Great Monster," as Hamilton called the French republic, it was intensified to

a degree and carried to an extent hardly ever known before or since. That this dread of the success of the other side in a representative government should have led such a man as Hamilton to make a proposition like that contained in the letter to Jay, is a most melancholy example of the power and the danger of such sentiments which are wholly foreign to free constitutional systems.

But even while the fortunes of the party were thus declining, they were hurried still faster on their downward course by the ever increasing bitterness and the greater openness of the quarrels among the leaders. The nomination of the peace commission led to violent attacks upon the President by Pickering, who seems to have resolved to break him down, and these attacks made in private letters were now circulated with but little pretence of secrecy among the New England leaders. Immediately after the New York election, which crippled Hamilton by depriving him of the control of the vote of that State in the electoral college, Adams drove McHenry and Pickering from his cabinet. This deepened the feud, and Adams, irritated by the assaults of his opponents, gave loose to his own tongue, at all times a rather unruly member. Among other abusive things, he called his opponents a British faction, and

stigmatized Hamilton, in particular, as acting in the interests of England. This attack soon reached Hamilton's ears, and in view of its source he felt that it could not be passed over in silence. He accordingly wrote a brief note, stating that he had heard the reported accusation of the President, and inquiring if the report were true. Receiving no reply he again wrote to Mr. Adams, repeating his question and denying the truth of the alleged charge. Both notes were courteous and straightforward, but they were passed over in complete silence. It must not be forgotten that there was no open breach between the President and Hamilton. Their relations were as yet friendly in form at least. Moreover, only a short time before Mr. Adams had written to Hamilton asking his assistance in securing for Colonel Smith, the President's son-in-law, a desirable position in the army. Hamilton had cheerfully and generously given his services, and his note was pleasant and friendly. Yet, with this incident fresh in his mind, Mr. Adams did not hesitate to refuse to notice a proper and reasonable question asked by the principal officer of the army who was also one of the most distinguished men in the country. To say that such treatment on the part of Mr. Adams was uncivil, is but little. It was a gross blunder, and was unfortunately

of a piece with all Mr. Adams's conduct towards Hamilton. When the latter came to Trenton to urge the suspension of the peace commission, Mr. Adams refers to his visit with a pitying sneer. Hamilton was the most powerful leader of the Federalists; he was the most conspicuous and brilliant statesman in the country, and yet the President, the head of the Federalist party, first undertook to ignore him, then slighted his advice and derided him, and finally treated his manly inquiry with contemptuous silence. Decency, prudence, and self-interest, to take no higher motives, dictated an opposite course. We are very far from holding Mr. Adams solely responsible for the downfall of the Federalists, but his treatment of Hamilton, tried merely by the test of statesmanship and good politics, shows how completely he failed as a leader of men, and how he became, despite all his courage, honesty, and abilities, a principal cause in the ruin of the party.

Quarrels like these could not long be confined to the knowledge of the leaders. They were sure to break out and, coming to the surface before the public, to work all the vast mischief of which they were capable. They reached their height just as the Presidential election drew near. To throw Adams over

meant an open split and certain defeat, and the leaders in Congress with much misgiving, and on the part of many with no great good-will, resolved to support him again as a candidate for the Presidency, in conjunction with Charles Pinckney for Vice-President. Hamilton made the best of what seemed to him a very bad business. Even after the loss of New York, there was still a chance for the Federalists if South Carolina would vote for both candidates. Hamilton urged, therefore, once more, an equal vote for both Pinckney and Adams, and again it may be said that his policy was the only one which could have secured success. It was generally supposed, however, that this course would result in the election of Pinckney, a result which Hamilton openly preferred. It was bad enough to have this preference for Pinckney generally known; but Hamilton was now so thoroughly enraged and so completely alienated from the President that he went still farther and wrote a pamphlet designed to show up Mr. Adams's failings, and to vindicate his own position and that of the war Federalists.

The project was so utterly wild that every effort was made to dissuade Hamilton from his his purpose. The disapprobation, indeed, was so general that even he resolved at the last moment to limit the circulation of this effusion

to a few friends. But it was too late. Burr, through his agents, stole a copy, and the pamphlet appeared. This famous production is a defence of the war Federalists and a personal attack on Mr. Adams. A good deal of the censure was just enough, but the pamphlet, as a whole, was a piece of passionate folly. Hamilton denounced as unsafe, violent, vain, and egotistic, a Federalist President, whose general public policy all Federalists supported; and then wound up his bitter diatribe with the lame and impotent conclusion of advising every one to vote for the man so much to be distrusted. The whole thing was simple self-stultification, and the pamphlet met with no favor, except among the Democrats. Even Hamilton's closest friends were frightened and displeased. If the Federalists had openly divided, and the two wings had engaged in controversy, a polemic of this sort might have seemed natural. But for one great leader to publish such an attack upon another, when the party was formally in harmony and upon the eve of a close and doubtful contest for the Presidency, was simple madness. It was the work of a man crazed with passion, and bent on revenge.

This unhappy incident cannot be dismissed without a word upon Hamilton's relations with the cabinet. It has been charged that in this

respect he acted in bad faith. That the cabinet officers went too far in furnishing Hamilton, and others also, with all sorts of information which came to them in a confidential capacity, will not, I think, be questioned. It is not apparent, however, that Hamilton made any improper use of this information, for although he was anxious enough for material, there was none to be had which was of peculiar value or novelty. But there is no ground for accusing Hamilton of bad faith in this particular. He made a mistake in trying, through his influence with the cabinet, to force the President's hand, but he had a perfect right, as a party leader, to correspond with the secretaries and to give them his opinions and advice on political questions. He had done the same thing in Washington's time, and no one has ever hinted that there was any impropriety in it. The fact that he was not personally on good terms with Adams does not affect the matter. Hamilton was fully entitled to write private letters to members of the cabinet, and they had a right to receive them. The fact that the secretaries, after they found themselves in opposition to the President, ought to have retired, is a wholly distinct matter, and must be discussed on different grounds. If they chose to be guided by Hamilton, a private individual and unoffi-

cial leader, that was their affair, not his. The pamphlet against Adams was passionate, foolish, and contradictory in itself, and it placed Hamilton in a weak and false position, but it was an open attack, and was not liable to the charge of bad faith.

If anything was needed to make the overthrow of the Federalists certain, this unfortunate pamphlet would have done it. But the party's doom was already sealed. South Carolina would vote only for a southern man, and Pinckney, with the chivalrous sense of duty which he always displayed, refused to be separated from Adams. The result was the defeat of the candidates of the Federalists and the close of their party career as rulers of national politics. The struggle of the election did not, however, come to an end in the electoral colleges. The equal vote received by Burr and Jefferson threw the final decision into the House of Representatives, and the former began at once to sound his way toward an arrangement which should bring him in as President over Jefferson. The Federalists in Congress, maddened and reckless by defeat, turned with avidity to the chance of snatching the office from their arch-enemy Jefferson. The crisis was very grave, and indeed threatened civil war. Once more the Federalists at Washington were

running to perilous extremes, and once more Hamilton checked them. The wild passion, which had led him into the attack on Adams, had spent itself, and he was, again, the cool, wise, far-seeing statesman with his prejudices and impulses under the control of reason. He knew that Jefferson was the fairly chosen President, and that such was the intention of the people. He saw the danger which setting Jefferson aside by an intrigue would bring. Much as he disliked the man, he knew that his former colleague was timid, cautious, and trained in politics of the better sort. He also knew Burr, and rightly believed the hero of New York city politics to be shallow, dangerous, and utterly unscrupulous. Putting aside all personal feeling, he threw himself into the conflict and exerted his powerful influence to check the mad projects of the Federalists. His intervention probably had a decisive effect. It was certainly courageous, high-minded, and such as became the distinguished leader of a great party. After the storm of the election and the bitterness of party faction it was a fit conclusion to Hamilton's career as a public man, which practically ended with the downfall of his party.

CHAPTER X.

PROFESSIONAL LIFE. — DUEL AND DEATH.

THE defeat of the Federalists left Hamilton wholly free to devote himself to the practice of the law. Fortunately for him, his work was something very different from the merely nominal occupation which retired statesmen and disappointed politicians sometimes dignify by the name of "their profession." The proscriptive laws against Tories, as I have said, had given to Hamilton, Burr, and a few others, complete possession of the New York practice after the Revolution. Hamilton had not neglected the opportunity thus offered. While deeply engaged in the work of the constitution he labored at his profession, in which he had been the leader almost from his first appearance. He laid aside a lucrative practice when he took the treasury, and having exhausted his savings while in office returned to the bar a poor man, with his mind fixed on making money and fame as a lawyer. With his brilliant reputation as a public man and party leader he at once received more business than he had left in

1789. In a few months he was again at the head of the bar and master of a large and growing practice. After the election of Jefferson he became even more absorbed in the law than before, and drifted steadily out of the current of public affairs. With this he was now well content. He said with truth that he had no desire to reënter public life, unless called forth by the contingency of a foreign or civil war. Unfortunately for himself, he considered the latter misfortune only too likely to happen.

Much might be written of Hamilton as a lawyer. His professional success has been dimmed by the brilliancy of his career as a statesman; but there can be no doubt that he deserves a very high place among those Americans who have been most distinguished at the bar. As a constitutional lawyer it is not necessary to go beyond the argument on the national bank to show a capacity in this direction of the very first order. Hamilton's powers of statement and of clear, cogent reasoning were admirably adapted for arguments to the court on points of law and equity, and in this field he shone from the outset. Fortunately, we have proof of his power before the court and also of his effectiveness with a jury, the most evanescent form of legal ability, in two very famous cases which were of sufficient importance to escape oblivion.

One was a prosecution for libel directed against Henry Croswell, a Federalist editor of a small local journal. The obnoxious paragraph was to the effect that Jefferson had paid Callender to slander Washington and Adams. This statement was not particularly outrageous if compared to those which filled the newspapers on both sides at that time, and it had moreover already appeared in substance in the "New York Evening Post." But the Democratic leaders, now that they had come to power, were resolved to try their hand at muzzling the press and putting a stop to the stinging attacks of their opponents. They, therefore, selected a weak assailant and prepared to make an example of him for the benefit of the Federalist editors. With a Democratic sheriff, Democratic grand-jury, and Democratic judge, they obtained an indictment, after exhibiting a rough disregard of the rights of the defendant. When the case came to trial, Hamilton, who had been urged to assume the defence, was unable to appear, and the prosecution was pushed unrelentingly. Croswell's counsel asked for time, in order to get witnesses from Virginia to testify to the truth of the libel; but Judge Lewis held that the jury were judges only of the fact, and not of the truth or intent of the publication. After a night's deliberation the jury found Croswell

guilty, and his counsel at once moved for a new trial on the ground of misdirection by the judge. The ruling of Judge Lewis was in direct contradiction of the famous New York precedent established in the Zenger trial, but it found support in the law of England. The issue raised the great question of general verdicts, on which Erskine won his renown and stemmed the tide of reactionary violence in London. It appealed to Hamilton both as a lawyer and statesman, and as the consistent friend of a free press in accordance with what he believed to be the true principles of the common law. He therefore laid everything aside in order to make the principal argument in support of the motion before the Supreme Court at Albany. The case excited intense interest. Every one flocked to the court room, and the legislature could not obtain a quorum. Hamilton closed the case the first day, and the court adjourned before he had finished. He concluded the next morning, and occupied in all six hours. His argument was a splendid piece of reasoning and eloquence, marked by all the qualities of thought and expression for which he was distinguished. Chancellor Kent, whose notes have preserved to us all that we know of this argument, said that "it was the greatest forensic effort Hamilton ever made. He had bestowed

unusual attention on the case, and he came prepared to discuss the points of law with a perfect mastery of the subject. There was an unusual solemnity and earnestness on his part in the discussion. He was, at times, highly impassioned and pathetic. His whole soul was enlisted in the cause. The aspect of the times was portentous, and he was persuaded that if he could overthrow the high-toned doctrine of the judge it would be a great gain to the liberties of this country. . . . The anxiety and tenderness of his feelings, and the gravity of his theme, rendered his reflections exceedingly impressive. He never before in my hearing made any effort in which he commanded higher reverence for his principles, nor equal admiration for the power and pathos of his eloquence." There is no need to attempt any addition to this statement. A man who could win praise, so high and so unstinted, from such a man as Chancellor Kent, requires no further testimony to his rank and ability as a great lawyer.

The other famous case which has come down to us, and to which I have already alluded, was a murder trial, which appealed strongly to the interest and sympathies of the community, and which exhibits Hamilton's powers in a new light, and one very different from that of the prosecution of Croswell. The body of a girl

was found in a well, and her lover, a young mechanic of good character, was suspected, indicted, and put on trial for the murder. Hamilton was retained for the defence, the difficulty of which was greatly enhanced by the strong popular feeling against his client. The evidence was nearly all circumstantial, and Hamilton dealt with it as it was put in very effectively, and greatly impaired its effect. The government then called their principal witness, one Croucher, a fellow of evil repute and on whose direct testimony the verdict depended. Hamilton had become convinced that Croucher was the real culprit, and he knew that his evidence was the crucial point in the case. When the examination in chief was concluded the night was well advanced. Hamilton sent for two candles and by placing one on each side of the witness box threw Croucher's face into strong relief, and then confronted him with a fixed and piercing gaze. Objection was made to this procedure, but the court overruled the objection, and Hamilton then said with deep solemnity, "I have special reasons, deep reasons, reasons that I dare not express, reasons that, when the real culprit is detected and placed before the court, will then be understood." He paused, and the attention of every one was riveted in breathless silence upon the witness. Hamilton

continued: "The jury will mark every muscle of his face, every motion of his eye. I conjure you to look through that man's countenance to his conscience." A severe cross-examination followed. The wretched witness stumbled, contradicted himself, and utterly broke down. The jury acquitted the prisoner without leaving their seats. The subsequent history of Croucher,[1] who left the court room covered with suspicion and contumely, justified Hamilton's device, which under ordinary circumstances would not be permissible. The incident shows in Hamilton that quickness of apprehension, force of personality, and fertility of resource as well as the dramatic sense, which are all such important and necessary qualities to great advocates before a jury. These two cases, in different ways, are good illustrations of Hamilton's power and success at the bar.

The popular belief in the certainty of Hamilton's winning cases was extraordinary, and while it brought him briefs without number it reveals at the same time the great secret of his success as an advocate. Men came to think that, if he exerted himself, he could compel any one, whether judge or juryman, to agree

[1] Croucher was convicted of rape on a child, was pardoned, went to Virginia, there committed a fraud, and fled to England, where he is said to have been executed for a heinous crime.

with him. This idea sprang from a vague perception of what was, in reality, the very essence of Hamilton's mind and character. Force of intellect and force of will were the sources of his success. Eloquence he had in abundance, but it was that of the parliamentary orator and debater rather than of the advocate to a jury. He was, above all things, fitted for the Senate, and it was the eloquence of the Senate that he brought into the courts. He rarely attempted to deal with that complicated machine, a jury, by any of the various and difficult methods characteristic of the greatest advocates, but he addressed them as he did a convention, or as he did the public when he spoke through his essays, always relying, mainly, on his power to carry conviction to their reason. Yet he never forgot, when he was speaking, that while he convinced he must also persuade, that reason must not only be satisfied, but prejudices subdued. He supported arguments by resorting to the emotions. He was full of pathos, fervor, and indignation, and when he was stirred they gave warmth and light to all he said. He never indulged in rhetorical flourishes, and his style was simple and severe. He seldom sought to move the passions of men through their imagination. Directness was his most distinguishing characteristic, and whether he appealed to

the head or the heart, he went straight to the mark. The secret lay in the force with which he did it. It was the passionate energy, the strong nature, the commanding, irresistible will which carried his hearers by storm when reasoning had made a practicable breach, and these were the qualities which made men believe that Hamilton could extort assent and compel submission from the most stubborn and unwilling opponent.

But while Hamilton was thus employed in winning fortune and in adding the fame of the great lawyer to that of the distinguished statesman, while he was ever withdrawing more and more from politics, planning a great work on civil government, enjoying his family and ordering the affairs of his farm, at that moment his fate was close upon him. He continued, of course, to take an interest and a more or less active part in public concerns. The Federalists broke up rapidly after their defeat, but he was still the trusted chief of all who held together. Whenever the responsibility of leadership forced him to act he never shrank from the duty, and it was one of these occasions that brought him to his death.

Aaron Burr defeated Hamilton in the struggle for the control of New York, which cost the Federalists the Presidency, but he could not

drive his great opponent from his path. Hamilton had stood between him and a foreign mission, and came again athwart his course, by frustrating his intrigue for the Presidency. Thus baffled among the Federalists, Burr turned to his own party only to see his power waning, and to encounter the dislike and suspicion of Jefferson. The crafty Virginian was bent on the destruction of his would-be rival, and Burr soon found himself hopelessly entangled in the subtilely woven meshes of presidential intrigues, and falling helplessly toward certain ruin. To extricate himself from the disastrous field of national politics, he sought the governorship of New York, behind which was the possibility of a northern confederacy and presidency, a phantom evoked by the murmurs of secession now heard among New England leaders. Again Hamilton arose and stood in the way of these intrigues, denouncing the schemes of secession, and so dividing the Federalists of New York as to give the election to Lewis, Burr's Democratic rival. Then it was that Burr determined upon revenge. Vengeance must have been his principal if not his only motive, inasmuch as killing Hamilton was not likely to improve his own condition, even though it removed his arch enemy. In 1800 there were many stronger incentives to cal'

Hamilton out than in 1804, but Burr had then held his peace and bided his time. Now, however, his political fortunes were desperate, and the obloquy sure to come upon him if Hamilton fell by his hand could hardly make matters worse. With cool deliberation he set about forcing a quarrel. He showed his purpose plainly enough, by selecting a remark attributed to Hamilton at the time of the caucuses held to nominate candidates for the governorship, which was really applicable to his general public character, was not peculiarly severe, and was perfectly inoffensive, compared with many of the denunciations launched at him by Hamilton only a few years before. Hamilton had no desire to fight, but it was impossible to avoid it, if he admitted the force of the code of honor, when Burr was determined to fix a quarrel upon him. There was an exchange of letters, and finally a meeting was arranged.

Aaron Burr, who was now on the eve of committing the deed which has done more than anything else in his worthless life to keep his memory alive, belonged to a not uncommon variety of the human species. He was one of the conspirator class of which Napoleon III. furnished the most conspicuous example in modern times. It has been the fashion to portray Burr as a being of great but misguided in-

tellect, a human Mephistopheles, — grand, evil, mysterious. In reality he was a shallow man, with a superficial brilliancy, and the conspirator's talent for intrigue of all sorts. He was a successful rake, — bad, unscrupulous, tricky, — possessing what women and young men call "fascination," and utterly devoid of any moral sense. He would not stab or poison Hamilton, for he was not a common villain, and had a due respect for criminal and social law. But he was perfectly ready to call Hamilton out and kill him if he could under the rules of a recognized code. This duel has been often spoken of as a murder. In the forum of conscience, before the tribunal of moral laws, Burr was no doubt a murderer, but by the code which he and Hamilton alike recognized, and by the system under which they were brought up, Burr acted in strict accordance with his rights. Hamilton certainly had no ground to complain. He was a fighting man, and he had always admitted the force of the duellist's code of honor. Over and over again he had described Burr in language which, as he was well aware, implied in that day a readiness to answer for it in the field. The fact that on this occasion the words might be confined strictly to Burr's public character availed nothing. Hamilton had repeatedly used "fighting words" in speaking

of Burr, and the latter had the right to demand a reckoning for any particular sentence he might select. There seems to be little doubt that Burr had come to Hamilton not long before in great pecuniary distress, and had been relieved with that large-hearted generosity in which Hamilton never failed. This incident casts a still deeper shade of infamy upon Burr's blackened character, but it does not affect his standing under the code. The code of honor, so-called, was bad and false, barbarous even, but those who lived by it were responsible to it and for it. When Hamilton attacked Burr as he did, he ran the risk of a challenge which he could accept or decline as he chose. Such a challenge did not, according to the code of honor, make Burr a murderer, nor did he become one by practising at a mark before fighting. Every Frenchman, if he has time, goes to the Salle d'Armes before fighting, and a man has as much right to prepare for a duel as for a boat-race or a boxing match. The pity of it all is, that Hamilton felt obliged to yield assent to the requirements of the code.

Each man prepared for the meeting in his own fashion: Burr by pistol practice in his garden, Hamilton by settling the business of his clients. As the fatal day drew near, Hamilton displayed a calm cheerfulness, such as became

a gallant man of strong character, and wrote farewell letters to his wife full of the most intense feeling and touching pathos. Burr took the necessary precautions for the destruction of compromising letters from women whom he had seduced. They met at last, on a beautiful July morning, by the banks of the Hudson. Hamilton fell at the first fire, mortally wounded, discharging his own pistol into the air. He was taken to his home, lingered a few hours in terrible pain, and died, surrounded by his agonized family. Burr went forth unharmed, to engage in abortive treason, and to become a wanderer and an outcast on the face of the earth.

Hamilton's suffering and death caused an outburst of bitter and indignant grief among men of all parties throughout the nation, which has been equalled only in our own time by the popular emotion at the murder of Lincoln and Garfield. The people knew that a great man had fallen. The senseless slaughter of a famous statesman, the useless, needless sacrifice of a man of brilliant abilities in the prime of life, was felt to be almost as much a disgrace as a misfortune. Hamilton's death did more to abate duelling and make it odious than any event in our history.

The question, however, which presses on us

as we consider the circumstances of Hamilton's death is, why did he fight? why did such a man as he bow before the code to which he fell a victim? It was something far deeper than mere loyalty to a system which he, like other men of his stamp, had accepted as they found it. Hamilton could have set his foot upon the code. The personal courage of the man who stormed the Yorktown redoubt was beyond question or cavil. He could have said, "I renounce the code; it is senseless and barbarous. I have attacked you as a public man, and I choose to consider it a purely public matter. I decline to fight." He could have said this, and he would have said it had he not felt that the need of conforming to certain prejudices made the sacrifice imperative. Before he went to the fatal meeting he put upon paper a statement which gave with his own unrivalled force and clearness the objections to duelling, and the seemingly all-powerful motives which urged him to refuse to risk his life and the welfare of his children. At the end of this remarkable paper he gives his reason for meeting Burr in these words: "The ability to be in future useful, whether in resisting mischief or effecting good, in those crises of our public affairs which seem likely to happen, would probably be inseparable from a conformity with public prejudice in this particular."

Hamilton was a man, not only of courage enough to fight a duel, but he possessed that far higher courage which would have enabled him to refuse the challenge and face a public prejudice, the strength of which in his own case he sadly overestimated. What, then, were the possible crises which he foresaw, and which led to his fatal decision?

The opinions which caused these apprehensions are of the utmost importance to a correct understanding of his life and work. They furnish the key to the principles which guided him through a large part of his career as a public man, and they produced certain settled beliefs which finally drove him to accept Burr's challenge and thus hurried him to his death. I propose, therefore, to trace the growth and development of these opinions by means of extracts from his letters. In these passages we shall see the effect upon Hamilton of the French revolution and the dangers which he came to believe threatened the country. We shall then understand the nature of the crisis which haunted his imagination, and which caused him to sacrifice his life. In these same passages we shall also learn, incidentally, from his own lips how intense was his love of nationality and how deep his hatred of secession; and we shall see, too, in the most striking way, how purely national

were the principles which inspired his foreign policy and how utterly baseless were the accusations of undue sympathy with Great Britain.

The first extract is from a letter to Lafayette written in October, 1789, when everything looked so fair and smiling at the dawn of the French revolution. We see here the wonderful penetration and statesmanlike prescience of Hamilton as well as his knowledge and keen perception of forces, social and political, as he points out the dangers which he dreaded and which hardly any one then foresaw, but which all came to pass. In his fears we detect, too, the first germs of his subsequent opinions. He says to his old comrade-in-arms: —

"I have seen with a mixture of pleasure and apprehension the progress of the events which have lately taken place in your country. As a friend to mankind and to liberty I rejoice in the efforts you are making to establish it, while I fear much for the final success of the attempts, for the fate of those I esteem who are engaged in it, and for the danger, in case of success, of innovations greater than will consist with the real felicity of your nation. If your affairs still go well, when this reaches you, you will ask why this foreboding of ill, when all the appearances have been so much in your favor. I will tell you: I dread disagreements among those who are now united (which will be likely to be improved by the adverse party), about the nature of your constitution. I dread the

vehement character of your people, whom I fear you may find it more easy to bring on, than to keep within proper bounds after you have put them in motion. I dread the interested refractoriness of your nobles who cannot all be gratified, and who may be unwilling to submit to the requisite sacrifices. And I dread the reveries of your philosophic politicians, who appear in the movement to have great influence, and who, being mere speculatists, may aim at more refinement than suits either with human nature or the composition of your nation."

The next extract is from a letter written rather more than three years later, when these early anticipations had become terrible realities, and when the storms of the revolution had begun to disturb our own politics. Speculation as to results in France was at an end. All the possibilities that Hamilton had dreaded then were accomplished facts, and he was now anxious to know how much the same perils were to be feared in this country. He wrote to his friend Colonel Carrington, in April, 1793, to learn the state of public opinion in Virginia; and from Carrington's reply we discover what his inquiries were, and thus catch the drift of his thought at that time. He wished to know what the feeling was in Virginia as to the revolutionary cause in France; as to the execution of the king, the adoption of a neutrality policy

by the United States, the maintenance or abandonment of the French treaties, and as to the reception of Genet. He soon felt assured, apparently, that the same dangerous forces existed in this country as in France, and only doubted as to their extent and power among the people. In a letter of the same year (1793), after describing with marked disgust Genet's reception on arriving in Philadelphia, he speaks of the promoters of the affair as the opponents of the government and disturbers of order, and then says: —

"We too have our disorganizers. But I trust there is enough of virtue and good sense in the people of America to baffle every attempt against their prosperity, though masked under the specious garb of an extraordinary zeal for liberty. They practically, I doubt not, adopt this sacred maxim, that without government there is no true liberty."

Having already expressed his belief in the probability of "combinations" to control our politics in foreign interests, he then goes on after the passage just quoted to deprecate violent demonstrations of attachment to France and to repudiate all comparisons between her revolution and ours. "I own I do not like the comparison," he says, and then follow his reasons, which are worth giving in full because they state in a moderate and yet forcible man-

ner the grounds for his opinions as to the dominant movement of the age, and express very admirably the causes and the reasoning on which his principles and those of the Federalists generally were founded. It is an excellent exposition of the feelings which actuated the opposition to the French revolution and its theories:

"When I contemplate the horrid and systematic massacres of the 2d and 3d of September; when I observe that a Marat and a Robespierre, the notorious promoters of these bloody scenes, sit triumphantly in the convention and take a conspicuous part in its measures, that an attempt to bring the assassins to justice has been obliged to be abandoned; when I see an unfortunate prince, whose reign was a continued demonstration of the goodness and benevolence of his heart, of his attachment to the people of whom he was the monarch, who though educated in the lap of despotism, had given repeated proofs that he was not the enemy of liberty, brought precipitately and ignominiously to the block without any substantial proof of guilt as yet disclosed, — without even an authentic exhibition of motives, in decent regard to the opinions of mankind; when I find the doctrines of atheism openly advanced in the convention and heard with loud applause; when I see the sword of fanaticism extended to force a political creed upon citizens who were invited to submit to the arms of France as the harbingers of liberty; when I behold the hand of rapacity outstretched to prostrate and ravish the mon-

uments of religious worship erected by those citizens and their ancestors; when I perceive passion, tumult, and violence usurping those seats, where reason and cool deliberation ought to prevail, I acknowledge that I am glad to believe there is no real resemblance between what was the cause of America and what is the cause of France; that the difference is no less great than that between liberty and licentiousness. I regret whatever has a tendency to compound them, and I feel anxious, as an American, that the ebullitions of inconsiderate men among us may not tend to involve our reputation in the issue."

Two years later he felt that there was danger of actual outbreaks at a time when our relations with France had become very strained and threatening. The dangerous elements, he seems to have thought, were really on the verge of open violence in New York. He writes to Wolcott in July, 1795: —

"We have some cause to suspect, though not enough to believe, that our Jacobins meditate serious mischief to certain individuals. It happens that the militia of this city, from the complexion of its officers, cannot in general be depended on, and it will be difficult for some time to organize a competent armed substitute. In this situation our eyes turn as a resource in a sudden emergency, upon the military now in the forts, but these, we are told, are under marching orders. Pray converse confidentially with the

Secretary at War and engage him to suspend the march. Matters in eight or ten days will explain themselves."

The next extract gives a glimpse of Hamilton's theory of foreign policy and of the purely national spirit which inspired it. The last clause shows how deeply he felt the evil of the colonial mode of thought which was then so strong that men did not even realize that they were still beneath its influence. Hamilton already anticipated the essential need of that intellectual freedom and individuality toward Europe which it took years of conflict to bring to pass. The letter is dated December 16, 1796, and is addressed to Rufus King: —

"The favorable change in the conduct of Great Britain towards us, strengthens the hands of the friends of order and peace. It is much to be desired that a treatment in all respects unexceptionable from that quarter should obviate all pretext to inflame the public mind.

"We are laboring hard to establish in this country principles more and more *national*, and free from all foreign ingredients, so that we may be neither 'Greeks nor Trojans,' but truly Americans."

A few months later (April 10, 1797) he shows strongly in a letter to William Smith how averse he was to violence, either in favor of or against any foreign people whatsoever, whether

they were the English whom he respected, or the French whom he detested, because he knew that such violence was inconsistent not only with dignity but with a true national pride: —

"It is unpleasant to me to know that I have for some time differed materially from many of my friends on public subjects, and I particularly regret, that at the present critical juncture there is in my apprehension much danger that *sensibility* will be an overmatch for policy. We seem now to feel and reason as the *Jacobins* did when Great Britain insulted and injured us, though certainly we have at least as much need of a temperate conduct now as we had then. I only say God grant that the public interest may not be sacrificed at the shrine of irritation and mistaken pride."

The same feeling finds expression in the following passage from a letter to Oliver Wolcott, dated June 6, 1797: —

"I like very well the course of executive conduct in regard to the controversy with France, and I like the answer of the Senate in regard to the President's speech.

"But I confess, I have not been well satisfied with the answer reported in the House. It contains too many hard expressions; and hard words are very rarely used in public proceedings. Mr. Jay and other friends here have been struck in the same manner with myself. We shall not regret to see the answer

softened down. *Real firmness* is good for every thing. *Strut* is good for nothing."

In a similar strain he writes to Pickering a few months later (March 27, 1798), defining the proper relations to be maintained with England, in case the war against France should be actively prosecuted: —

"I am against going immediately into alliance with Great Britain. It is my opinion that her interests will insure us her coöperation to the extent of her power, and that a treaty will not secure her further. On the other hand a treaty might entangle us. Public opinion is not prepared for it."

England, he says, should give sufficient powers to her minister here to meet all exigencies, and to enter into alliance if opportunity and public opinion permitted it. Then he refers to the necessity of acquiring Louisiana, which at that moment held a leading place in his thoughts.

In the next letter, which I shall quote, we see, for the first time, a plain allusion to the "crisis" which might in the event of its occurrence have a decisive effect upon his actions and upon his career. The letter is addressed to Jay, who wished to appoint Hamilton to the vacancy in the United States Senate, caused by the resignation of Judge Hobart, and is dated April 24, 1798.

"I have received your two favors of the 19th instant. I feel, as I ought, the mark of confidence they announce. But I am obliged by my situation to decline the appointment. This situation you are too well acquainted with to render it necessary for me to enter into explanation. There may arrive a crisis when I may conceive myself bound once more to sacrifice the interests of my family to public call. But I must defer the change as long as possible."

How deeply rooted his convictions had now become as to the dangers to be apprehended from the influence of France and of French ideas, and how real and menacing he felt these perils to be in the United States, are well illustrated in a letter to Washington, dated May 19, 1798. I have already referred to this letter in a previous chapter, but the passage in question deserves a full quotation in this connection.

"It is more and more evident that the powerful faction which has for years opposed the government, is determined to go every length with France. I am sincere in declaring my full conviction, as the result of a long course of observation, that they are ready to *new model* our constitution under the *influence* or *coercion* of France; to form with her a perpetual alliance, *offensive* and *defensive*, and to give her a monopoly of our trade by *peculiar* and *exclusive* privileges. This would be in substance, whatever it might be in name, to make this country a province of France. Neither do I doubt that her standard, dis-

played in this country, would be directly or indirectly seconded by them, in pursuance of the project I have mentioned."

His fears of social confusion were not only, as we see here, fully aroused, but his pride in American nationality was deeply touched. In another passage, in the same letter, his dread and dislike of anything sectional in our politics, or of anything suggesting geographical division, and consequent secession, come out very strikingly.

"It is painful and alarming to remark that the opposition faction assumes so much a geographical complexion. As yet, from the south of Maryland, nothing has been heard, but accounts of disapprobation of our government, and approbation of or apology for France. This is a most portentous symptom and demands every human effort to change it."

The mischiefs which he anticipated seemed to him in this exciting year to be so close at hand that we find him preparing in his own mind practical measures for meeting and overcoming them. His first thought, of course, was for the army, upon which he relied for the maintenance of order and government. It was with this purpose that he wrote as follows to Otis, December 27, 1798: —

"Any reduction of the actual force appears to me inexpedient. It will argue to our enemies that we

are either very narrow in our resources, or that our jealousy of his designs has abated. Besides, that with a view to the possibility of internal disorders alone, the force authorized is not too considerable. The efficacy of militia for suppressing such disorders is not too much to be relied on."

The army was his chief reliance, but he also had an extended plan for the proper course to be pursued by the Federalists now that they were in possession of all branches of the government. This policy is fully set forth in the well-known letter to Dayton, written in 1799. I have already referred to it and given an outline of its contents. It advised a vigorous strengthening of the central government in all directions, including a division of the large States, and the enactment of sharp alien and sedition laws. It is, as I have said, the best exposition of Hamilton's views at that trying period, is strongly characteristic of its author, and was so far as possible carried out by the Federalists.

A little later in the same year, and in a similar spirit, he wrote to ask the Attorney General, Hoffman, to prosecute a newspaper which had charged him with suppressing the "'Aurora' by pecuniary means."

"Hitherto," he says, "I have forborne to resort to the laws for the punishment of the authors or abettors

(of such attacks), and were I to consult personal considerations alone, I should continue in this course, repaying hatred with contempt. But public motives now compel me to a different conduct. The designs of that faction to overturn our government, and with it the great pillars of social security and happiness in this country, become every day more manifest, and have of late acquired a system which renders them formidable."

He then adds that one engine for the destruction of society is the issue of libels calculated to destroy the character of the most conspicuous supporters of the government, as in this instance, by charging them with attempts to stifle the liberty of the press; and he says that these intrigues and calumnies are carried on by American citizens aided by foreign gold.

The immediate danger which Hamilton dreaded at the time of the troubles with France, dropped out of sight during the heated struggles which preceded the election of 1800. Peace came, too, bringing quiet in its train everywhere, and while it served to make the contagion of French principles appear less virulent, it also pushed the "crisis," which Hamilton always anticipated, still farther into the background. After the excitement of the political battle had subsided, and when nothing was left but to watch the course of the Demo-

cratic party in full possession of the government, Hamilton seems to have given way to a depression in regard to public affairs very unusual to his strong nature. It seemed to him that all his labors had been wasted and misunderstood, and that his achievements, and those of the great party which he had led, would crumble away beneath the gradual assaults of the now triumphant opposition. In this mood he wrote bitterly to Gouverneur Morris, giving vent to the disappointment which filled his soul when he thought of the success of his enemies, the seeming ingratitude of the people, and, as he believed, the waste and misapprehension of all the efforts which he had made for the welfare and glory of his country. The letter in question is dated February 27, 1802: —

"Mine is an odd destiny," he says. "Perhaps no man in the United States has sacrificed or done more for the present constitution than myself; and, contrary to all my anticipations of its fate, as you know, from the very beginning. I am still laboring to prop the frail and worthless fabric. Yet I have the murmurs of its friends no less than the curses of its foes for my reward. What can I do better than withdraw from the scene? Every day proves to me more and more, that this American world was not made for me.

"The time may ere long arrive when the minds of

men will be prepared to make an effort to *recover* the constitution, but the many cannot now be brought to make a stand for its preservation. We must wait a while.

"You, friend Morris, are by birth a native of this country, but by *genius* an exotic. You mistake if you fancy that you are more of a favorite than myself, or that you are in any sort upon a theatre suited to you."

This frame of mind, in which a man in bitterness of spirit gives up a world which he believes to be hopelessly blind and wrong, was thoroughly alien to Hamilton. It could not have lasted long at any time. No matter how desperate the prospect, Hamilton's instinct was ever to push the battle, and to fight on despite all discouragements. Soon after this letter to Morris, therefore, we find him laying out a policy to be pursued by the Federalists in order to check their adversaries and recover their lost ground. The letter is written to Bayard, in April, 1802, and is one of the most curious and interesting in all Hamilton's correspondence. It shows how deeply imbued he had become with his dread of social disorders, and the extraordinary scheme which he presents for an association to combat the poisonous French doctrines, indicates the development of a state of mind which was certainly highly strained and almost morbid in

its extreme views of public affairs. He gives first some suggestions as to the policy to be followed by the Federalists, which show very strikingly how deeply rooted his opinions had become as to the dangerous state of society, and the perils which threatened the country. He begins by pointing out that men cannot be governed by reason, his estimate of human nature having become much lower in the contemplation of Democratic ascendency. He then says that while the Federalists have neglected to appeal to the passions and especially to the vanity of men, their opponents have thriven by assiduously pandering to these qualities of mankind. The time has come for the Federalists to repair this error, not by any unworthy or revolutionary devices, but by irregular methods which would be needless under a sound and stable government. He then continues: —

"In my opinion, the present constitution is the standard to which we are to cling. Under its banners *bonâ fide* must we combat our political foes, rejecting all changes but through the channel itself provides for amendments. By these general views of the subject have my reflections been guided. I now offer you the outline of the plan they have suggested. Let an association be formed, to be denominated 'The Christian Constitutional Society.' Its objects to be: 1st. The support of the Christian re-

ligion. 2d. The support of the constitution of the United States."

He then sketches its organization and describes its purposes as follows: —

"1st. The diffusion of information.

"2d. The use of all lawful means in *concert* to promote the election of *fit* men.

"3d. The promoting of institutions of a charitable and useful nature in the management of Federalists. The populous cities ought particularly to be attended to; perhaps it would be well to institute in such places — 1st. Societies for the relief of emigrants 2d. Academies, each with one professor, for instructing the different classes of mechanics in the principles of mechanics and the elements of chemistry. The cities have been employed by the Jacobins to give an impulse to the country; and it is believed to be an alarming fact, that while the question of the Presidential election was pending in the House of Representatives, parties were organizing in several of the cities in the event of there being no election, to cut off the leading Federalists and seize the government."

In addition to this society he urges a strong and immediate effort for the repeal of the law repealing the Judiciary Act, and he counsels in other respects the adoption of a waiting policy until popular opinion should be educated and turned in the right direction.

The last letter from which I shall quote, and Hamilton's last letter on public concerns, relates to the Separatist movement in New England. There is a deep and pathetic interest in these words, written when the shadow of death was actually lying dark upon his path. They show once more that in all his dread of democracy and French principles, the national sentiment still rose supreme, and that with his latest breath he resisted any plan which threatened the unity of the country. The letter is addressed to Sedgwick, and is dated July 10, 1804:

"I will here express but one sentiment, which is, that dismemberment of our empire will be a clear sacrifice of great positive advantages without any counterbalancing good, administering no relief to our real disease, which is *democracy*, the poison of which by a subdivision will only be the more concentrated in each part, and consequently the more virulent."

By these extracts, if they have served their purpose here, we can perceive the drift of Hamilton's thought. We can see the effect of the French revolution and of the working of political forces in this country upon his opinions, and we are now in a position to understand and define the exact nature of that "crisis" which had haunted Hamilton for years, which had grown to be his deepest conviction and his first thought, and to which he gave up his life

Hamilton believed the constitution to be unequal to the burden imposed upon it, and he considered the government too weak. At any moment, as it seemed to him, there might be a general upheaval, and that then the elements which had desolated France and swept over Europe might here engage in a conflict for supremacy. Then would the country be menaced with anarchy and ruin; property would be confiscated, society broken up, religion trampled under foot, and everything that makes life worth having would be in jeopardy. Then the salvation of the country and the preservation of constitutional liberty would demand a party of order, an army, and a leader ready to play the part of a saviour of society, and establish the government on strong and enduring foundations. That great part, Hamilton felt, would fall to him, and if the contingency had been possible, there can be no doubt that he was the man to whom the party of order would have turned. He could not do this, he could not stand at the head of an army, if it were possible for any man to cast even the most groundless imputation upon his personal courage. He was utterly at fault in supposing that there were in the United States the same elements and the same forces as in France. Both race and history made their existence impossible. The rep-

resentative democracy developing in America was more hostile to the anarchy of the French revolution than the strongest and most energetic government which the wit of man could devise. Hamilton's mistake was neither unnatural nor uncommon; but, joined with his just belief of the duty which would devolve upon him in such a crisis as he anticipated, it made it imperative for him to accept the challenge of Burr. It is neither fanciful nor strained to regard Hamilton's death as a result of the opinions bred by the French revolution. That terrible convulsion had many illustrious victims of all nations and all creeds, but hardly one more brilliant or more uselessly sacrificed than the great statesman who fell before Burr's pistol that peaceful July morning.

Thus far I have dealt with Hamilton solely as a public man. It is, indeed, difficult to approach him in any other way, when his life and talents were given so constantly and so completely to the service of the public. He died a private man, mourned by a nation; he had lived, except in his very last years, immersed in the affairs of the commonwealth and in the full glare of publicity. Every act of his was scrutinized and examined, every slip chronicled, every mistake magnified, while he stood for

years in the highest places, assuming every responsibility and conspicuous before the eyes of all men. This unsparing publicity which pursued Hamilton in his life, has attended him in his death. No American, except Washington, has had everything which he ever wrote, said, or did, published with such elaboration as has fallen to the lot of Hamilton. No other American has been, historically speaking, so much discussed, so much criticised, and so much written about. All this enhances the difficulty of any fresh study of Hamilton's life, but at the same time, even the briefest biography would be incomplete without an attempt, at least, to portray him as a man, to analyze the traits of his mind and character, and to define the quality of his greatness.

In person Hamilton was well made, of light and active build, but very small, much below the average height. His friends were wont to call him the "little lion;" and it is somewhat remarkable that his stature seems to have interfered so slightly, if at all, with his success as an orator. A commanding and imposing presence is a great aid in affecting an audience, and yet Hamilton was one of the most impressive speakers of his time. He was, too, the most eloquent man, and the most effective advocate of his day, whether in court or in convention,

if we can judge by results, by the fragments that remain of his speeches, and by the testimony of eye-witnesses. There was certainly no one who was in active public life during the same period, unless it be John Adams, or Fisher Ames on one memorable occasion, who could for a moment be compared with him as an orator. It is very plain, too, that Hamilton's success in this direction was by no means wholly due to what he said, or to his power of reasoning and of lucid and forcible statement. The man was impressive. Inches of stature and of girth were lacking, but he was none the less full of dignity. In this, of course, his looks helped him. His head was finely shaped, symmetrical, and massive. His eyes were dark, deep-set, and full of light and fire. He had a long, rather sharp nose, a well-shaped, close-set mouth, and a strong, firm jaw. The characteristics of the spare, clean-cut features are penetration and force. There is a piercing look about the face even in repose; and when Hamilton was moved a fire came into his eyes which we are told had a marvellous effect. But it was the soul which shone through his eyes, and animated his mobile countenance, that made him so effective in speech. As men listened to him, they felt profoundly the mastery of the strong nature, the imperious will, and the passionate

energy which gave such force to his pathos, to his invective and to the even flow of clear, telling argument. The impression which Hamilton was capable of producing is well illustrated by the famous scene of the murder trial, when he laid bare the guilt of Croucher. Yet the excitement of a court-room was not necessary to such a feat. In the quiet of an office solely by his own resistless determination he wrested a conveyance, which was unjust and had been unfairly obtained, from the oppressor of his client.

In private life Hamilton was much beloved and most attractive. He talked well and freely. He was open-hearted and hospitable, full of high spirits and geniality. In his own family he was idolized by wife and children. The affection which he inspired in all who knew him was largely due to the perfect generosity of his nature. He gave time and money with a lavish hand, to all who sought his aid. He carried this habit into his business to his own detriment. He would often refuse to make any charge to poor clients, and never could be persuaded to accept anything beyond a reasonable and modest fee. He had in truth a contempt for money, and while he made a nation's fortune, he never made his own. At his death he left his family little except his name and fame.

Like most men of great talents and strong will, Hamilton had a large measure of self-confidence. Just after he left the treasury, he feared that Congress would fail to treat the finances in a proper way. He wrote to a friend in great wrath that he would not stand tamely by and see the nation disgraced; if Congress did not do their duty they would have to reckon with him. On another occasion he was displeased by what he considered a useless demand for information on the part of the Senate. He thereupon addressed a communication[1] to that august body in which he lectured them as to their conduct, and took them to task roundly for their misbehavior. This letter is quite a curiosity, and the meekness with which the Senate apparently accepted the rebuke is not the least amusing part of the affair. All this was thoroughly characteristic of the man. The greater the odds the more defiantly and the more confidently he faced opposition. On one or two occasions this self-confidence took the more disagreeable form of self-assertion, but such outbreaks were rare.

Hamilton's defects sprang not from weakness but from the strength of his passions, which sometimes overmastered his reason. Thus it was

[1] The letter is given in full in Adams's *Life of Gallatin*, p. 116.

in his relations with women which had an unenviable notoriety. It was passion again which led him into the unworthy proposition to Governor Jay and into his wild attack upon Adams. His faults were those of a powerful and passionate nature when it had broken down all the barriers of self-control. His errors are all the more to be regretted because he was a man of such wide influence and striking abilities, and for this reason were, of course, all the more dangerous.

There is no better evidence of Hamilton's greatness than is to be found in the letters and sayings of his bitterest enemies. Burr pronounced the man to be lost who put himself on paper with him. Jefferson called him the "Colossus of the Federalists," and always referred to the acts and opinions of his opponents as those of Hamilton, speaking of that party by the name of its leader. Ambrose Spencer, the distinguished judge, who had had many conflicts with Hamilton, and, on at least one occasion, had felt the edge of his sarcasm, paid him one of the handsomest tributes ever rendered to his abilities, at the same time characterizing the quality of his greatness and his influence with peculiar felicity: —

"Alexander Hamilton," said Spencer, "was the greatest man this country ever produced. I knew

him well. I was in situations often to observe and study him. I saw him at the bar and at home. He argued cases before me while I sat as judge on the bench. Webster has done the same. In power of reasoning Hamilton was the equal of Webster; and more than this can be said of no man. In creative power Hamilton was infinitely Webster's superior. . . . It was he, more than any other man, who thought out the constitution of the United States and the details of the government of the Union; and, out of the chaos that existed after the Revolution, raised a fabric every part of which is instinct with his thought. I can truly say that hundreds of politicians and statesmen of the day get both the web and woof of their thoughts from Hamilton's brains. He, more than any man, did the thinking of the time."

Chancellor Kent, who was one of Hamilton's warmest admirers, says of him that—

"He rose at once to the loftiest heights of professional eminence, by his profound penetration, his power of analysis, the comprehensive grasp and strength of his understanding, and the firmness, frankness, and integrity of his character. We may say of him, in reference to his associates, as was said of Papinian: 'Omnes longo post se intervallo reliquerit.'"

There is not much to choose between the praise of the quondam foe and of the constant friend. Both the Federalist and the Democrat,

eminent lawyers and judges both, were agreed as to Hamilton's ability.

Among the Federalists Hamilton had a band of devoted friends who comprised a very large proportion of the most distinguished men in the nation. They were an able, strong, hard-headed, and rather dogmatic body, most of them leaders themselves, and holding high places in the republic. Yet they supported Hamilton with a fidelity which has been rarely equalled. The roll of his followers is enough by itself to establish his position in American history. Indifference was impossible toward Hamilton. He was too strong and too open to inspire lukewarm sentiments, and he was loved and hated with equal intensity. At the same time Hamilton, as I have already said, was preëminently a leader of leaders. He could do "the thinking of his time," he could issue orders, or plan a policy, or act in conjunction with men who followed or sustained him in obedience to the dictates of reason. But he was never an adept in the difficult and delicate art of managing men wherein his great rival Jefferson stood supreme. He was as far as possible from being a demagogue, and he was not even a popular leader, for he had too great a distrust of democracy to appeal successfully to the sympathy of the masses. In this he was a fit and

typical leader of the party to which he belonged. He could not float with the currents of public sentiment and had no faith in them. He was a leader, and could not follow. He could mark out a path and walk in it, and if the people hesitated or held back, he would walk alone. This did not arise from narrowness, for Hamilton had always great liberality of mind, but simply from the strength of his convictions and from reliance on his own abilities, which made it impossible for him to seek for success by yielding a jot of what he believed, after mature deliberation, to be right and true. This implies, of course, great force of character; but Hamilton had also a boldness of disposition which stamped itself on his financial and foreign policy, and, at times, amounted to an almost reckless audacity. The miserable Reynolds affair has cast a shadow upon the honor of James Monroe, and its wretched details have found a place in one of the biographies of Jefferson. No one can desire to rake over the ashes of this miserable scandal, but in its effect it showed the courage of Hamilton in a most striking manner. Drawn by his uncurbed passion into a low intrigue with a worthless woman, he found himself threatened with a black imputation upon his official integrity. At the cost of bitter grief

to himself and to all whom he most loved, he published a pamphlet in which he told the whole unpleasant story. The manliness of the act, the self-inflicted punishment, and the high sense of public honor thus exhibited, silenced even his opponents; but the confession was one which must have wrung Hamilton to the quick, and it shows an amount of nerve and determination for which our history can furnish no parallel.

Hamilton's career as a public man had closed before his death. Had he lived longer he would have added to his reputation as a lawyer and writer; but it is very doubtful if he would have again entered public life. His work was done. It was a great work, and had been well performed. He cared but little for office. He was ambitious, but his objects were fame and power, to be obtained by advancing the welfare and dignity of his country. So long as he could lead his party and help to shape the national policy, he was perfectly content to remain in a lawyer's chambers in New York. A great office had to him no value in itself, but only in what he was able to achieve by holding it; and every one will admit that few men have accomplished so much. He founded the financial system of the United States, and converted the barren clauses of the Constitution into a living organ-

ism. He established the doctrine of a liberal construction and of the implied powers; and he shares with Washington the honor of devising and carrying out the foreign policy of the United States. This is enough. There is no need to rehearse the almost endless list of lesser matters which bear the mark of his fertile and powerful intellect. He was always at work, and we look in vain for sterile places in his life.

There are two classes of statesmen, — those who are great in their calling, and those who, in addition, represent great ideas. Instances of the former kind abound. Examples of the latter are rare. Hamilton is one of the statesmen of creative minds who represent great ideas. It is for this reason that he left the deep mark of his personal influence upon our history. His principles of finance, of foreign affairs, of political economy, and of the powers and duties of government under the constitution may be found on every page of our history, and are full of vitality to-day. But Hamilton is identified with two other ideas which go far deeper, and which have been the moving forces in our national development. He did not believe in democracy as a system of government. He strove with all his energy to make the experiment of the constitution succeed, but he doubted its merit at the outset, and finally came to the

conclusion that in its existing form it was doomed to failure. He believed in class influence and representation, in strong government, and in what, for want of a better phrase, may be called an aristocratic republic. Curiously enough, this theory was put in practice only in the South, where Hamilton had scarcely any followers.

The other great idea of which he was the embodiment, was that of nationality. No other man of that period, except Washington, was fully imbued with the national spirit. To Hamilton it was the very breath of his public life, the essence of his policy. To this grand principle many men, especially in later times, have rendered splendid services, and made noble sacrifices; but there is no single man to whom it owes more than to Hamilton. In a time when American nationality meant nothing, he alone grasped the great conception in all its fullness, and gave all he had of will and intellect to make its realization possible. He alone perceived the destiny which was in store for the republic. For this he declared that the United States must aim at an ascendant in the affairs of America. For this he planned the conquest of Louisiana and the Floridas, and, despite the frowns of his friends, rose above all party feelings and sustained Jefferson in his unhesitat-

ing seizure of the opportunity to acquire that vast territory by purchase. To these ends everything he did was directed, and in his task of founding a government he also founded a nation. It was a great work. Others contributed much to it, but Hamilton alone fully understood it. On the other side was Jefferson, also a man who represented ideas, that of democracy and that of a confederacy, with a weak general government and powerful states threatening secession. The ideas which these two men embodied have in their conflict made up the history of the United States. The democratic principles of Jefferson, and the national principles of Hamilton, have prevailed, and have sway to-day throughout the length and breadth of the land. But, if we go a step farther, we find that the great Federalist has the advantage. The democratic system of Jefferson is administered in the form and on the principles of Hamilton, and while the former went with the current and fell in with the dominant forces of the time, Hamilton established his now accepted principles, and carried his projects to completion in the face of a relentless opposition, and against the mistaken wishes of a large part of the people.

To attempt to measure the exact proportions of a great man is neither very easy nor perhaps

very profitable. This biography has been written to little purpose if it has failed to show the influence of Hamilton upon our history, and this of itself is a title of the highest distinction. It is given to but few men to impress their individuality indelibly upon the history of a great nation. But Hamilton, as a man, achieved even more than this. His versatility was extraordinary. He was a great orator and lawyer, and he was also the ablest political and constitutional writer of his day, a good soldier, and possessed of a wonderful capacity for organization and practical administration. He was a master in every field that he entered, and however he may have erred in moments of passion, he never failed. Weakness and incompetency were not to be found in Hamilton. Comparisons are valueless, because points of difference between men are endless. John Marshall ranked Hamilton next to Washington, and with the judgment of their great chief justice Americans are wont to be content. But wherever he is placed, so long as the people of the United States form one nation, the name of Alexander Hamilton will be held in high and lasting honor, and even in the wreck of governments that great intellect would still command the homage of men

APPENDIX.

NOTE A.

Mr. Bancroft in the eighth volume of his history of the United States (page 79), in describing the great meeting at New York in July 1774, says: "It has been kept in memory, that on this occasion a young man from abroad, so small and delicate in his organization that he appeared to be much younger than perhaps he really was, took part in the debate before the crowd. . . . He proved to be Alexander Hamilton, a West Indian. His mother, while he was yet a child, had left him an orphan and poor. A father's care he seems never to have known. The first written trace of his existence is in 1766, when his name appears as witness to a legal paper executed in the Danish island of Santa Cruz." I have followed in my first chapter the ordinarily accepted account of Hamilton's birth and parentage, and after the most careful consideration and investigation which I have been able to give, I am not of the opinion that there is sufficient evidence to justify any biographer in setting it aside. At the same time grave doubts have been cast upon this account, and as they proceeded from so eminent an authority as Mr. Bancroft,

I felt that it was impossible for me to pass them over in silence, especially when entirely new material relating to this subject has come to my knowledge. The question of Hamilton's parentage possesses the interest which always attaches to the origin of very distinguished men, and the date of his birth affects our estimate of his youthful powers. On any theory Hamilton displayed great talents at a very early age, but if the accepted date of his birth is correct, his precocity was almost marvellous. Mr. Bancroft is evidently of the opinion that Hamilton was older than he was said to have been when he spoke at the meeting in the fields, for he could hardly have "appeared" less than seventeen, which is the age given him by his biographer. Mr. Bancroft's doubts arose partly, perhaps, from the intrinsic improbability of such extraordinary intellectual maturity, but chiefly from the deed signed by Hamilton as a witness in 1766. If Hamilton was born in 1757, he was only nine years old when he signed this instrument. It is certainly not a little remarkable that a child of that tender age should have been accepted as a competent witness to an important document, but any conclusion based on this phenomenon must of course be mere conjecture. If at thirteen he was able to manage the affairs of a considerable merchant he might very well have been a fit witness at nine. The character of his signature is of more importance than the fact of his affixing it to a deed. I have carefully examined an exact tracing of this signature. The hand writing is obviously Hamilton's. The signature is

written in a fair, open hand, and might well be the work of man. Only a close examination, which reveals a certain roundness in the letters, and deliberation on the part of the writer, suggests youthful penmanship. The signature is certainly a very remarkable one to have been written by a boy nine years old. But then it is not at all an impossible feat, and is by no means so extraordinary as the letter to Ned Stevens a few years later, or, indeed, as many of Hamilton's youthful performances.

This document, signed in 1766, is the only evidence directly bearing on Hamilton's age, but the fact that the date of his birth has been questioned, leads necessarily to an inquiry as to the circumstances of his origin and parentage, which have rendered such doubts possible. In a letter to a kinsman in Scotland, in 1797, he himself says: "You no doubt have understood that my father's affairs at a very early day went to wreck; so as to have rendered his situation during the greatest part of his life ineligible. This state of things occasioned a separation between him and me, when I was very young, and threw me upon the bounty of my mother's relatives, some of whom were then wealthy, though, by vicissitudes to which human affairs are so liable, they have been since much reduced and broken up. I myself, at about sixteen, came to this country." This meagre statement is all Hamilton himself tells us of his origin. He separated completely from his past when he joined the army of the Revolution. We have no letters from relatives or friends in the West Indies except from

Dr. Knox, the Nevis clergyman. There is also a letter, dated in 1785, from Hamilton to a brother James, who had written to him for money. In this letter Hamilton says that he has not heard from his brother and correspondent for years, and does not know whether he is married or single. He then asks anxiously about his father, saying that he not only is totally ignorant of that gentleman's circumstances, but that he does not know whether his father is alive or dead.[1] After Hamilton became famous his father appeared, or rather wrote to him, and he sent his father money and urged the old gentleman to come to this country.

This lack of information concerning the family and early life of such an eminent man is of itself enough to cause inquiry, and every one versed in American history is aware of the fact that a certain amount of mystery has hung over Hamilton's birth and parentage. Every student of the period is also familiar with the story, which oral tradition has handed down, that Hamilton was the illegitimate son of a rich West Indian planter or merchant, generally supposed to have been Mr. Stevens, the father of Hamilton's early friend and school-fellow.

This tradition has always been vague and unsupported. In the course of an examination of the Pickering papers for another object, I found among the memoranda collected by Colonel Pickering, with the purpose of writing memoirs of his contemporaries, two substantially similar accounts of Hamilton's birth

[1] *History of the Republic*, by J. C. Hamilton, vol. vii. p. 842.

and parentage. It must be remembered that although Colonel Pickering did not always agree with Ham ilton he was one of his most devoted admirers. He considered Hamilton by far the greatest man of his time and country, ranking him without hesitation above Washington. The memoranda in question are as follows:—

ALEXANDER HAMILTON. *Philadelphia, February* 15, 1822.

This morning I met with my friend Mr. James Yard of this city, with whom I have had an acquaintance of between twenty and thirty years. He and Dr. Stevens of the West Indies married, if I mistake not, two sisters, the daughters of the Danish Governor of Santa Cruz, of the name of Walterstorff (or a name sounding like it). Mr. Yard first introduced Dr. Stevens to me, when it was contemplated to appoint him American Consul General for St. Domingo, at the time that the distinguished negro General Toussaint L'Ouverture bore the chief sway in the Island. The conversation led us to speak of General Alexander Hamilton. I remarked to Mr. Yard, that at the first sight of Dr. Stevens his likeness to Hamilton was so strong, I concluded they were brothers, for it was generally understood that Hamilton was an illegitimate son of a gentleman of that name. Mr. Yard now told me that General Hamilton was born in the island of Nevis (near St. Christophers), the natural son of a Scotch gentleman of the name of Hamilton; that he was an apprentice to Nicholas Cruger, who afterwards removed (or returned) to New York; that there Hamilton and Stevens went to school together; and since the death of Hamilton, an aunt, the sister of his mother, came to New York, and was for some weeks in Mrs. Hamilton's house, from

whom (Mr. Yard naturally concluded) Mrs. Hamilton must have received full information of her husband's parentage; that this aunt being poor, and removed to Burlington, in New Jersey, received the aids of benevolence, partly from Mr. Yard; who also facilitated her return to the West Indies. Mr. Yard added, that General Hamilton's mother died but two or three years ago.

Mr. Yard told me, that after he knew that the papers, collected in relation to writing the life of Hamilton, had been put into the hands of Mr. Joseph Hopkinson, he advised Hopkinson frankly to state, that Hamilton was the natural son of a Scotch gentleman in the West Indies, as an avowal of a fact for which Hamilton, not being responsible, ought not to suffer in his reputation. [Mr. Yard (a gentleman of distinguished sagacity and information) might also think an open avowal of the fact more dignified in relation to a person of Hamilton's exalted talents and integrity, than any other course; and that to glide over his birth, the birth of a man so eminent, without adverting to his father, would amount to a confession that he was (in I believe English law-language) "filius nullius," or in plain English, "Nobody knew who was his father," the meaning of both expressions being that he was some one's natural son.]

As to the strong likeness between General Hamilton and Dr. Stevens, Mr. Yard could give no account; altho' it seemed apparent that he thought them near of kin. In cases of this sort, the possibility of *kindred blood* gives rise to surmises, or strong suspicions, of which no proof is attainable. — *From the Pickering MSS. vol. li. p.* 250.

ALEXANDER HAMILTON. *June* 29, 1822.

Altho' little if anything was publicly spoken, yet it seemed always to have been understood, among those

who were acquainted with this extraordinary man, that he was the illegitimate offspring of a Mr. Hamilton, in the West Indies. Meeting this morning with Mr. James Yard, — a merchant of Philadelphia whom I have long known, a gentleman distinguished for his good sense and information, and who had lived for some time in the West Indies, and was particularly conversant with the Danish Islands of St. Thomas and St. Croix, — I renewed the subject of General Hamilton's parentage, of which we had before conversed, and Mr. Yard repeated: That Hamilton was born in the Island of Nevis, the reputed son of a Scotch merchant of the name of Hamilton. That he was some time in the store of Mr. Cruger (I believe in St. Croix), and was sent to New York to obtain an education, it being observed that he possessed a mind of a superior cast. Mr. Yard supposed that Mr. Cruger (who was from New York) contributed towards the means required for that object. Edward Stevens (afterwards Dr. Stevens with whom I was acquainted in this city) was sent with Hamilton to New York, for the same purpose — his education.

About the year 1798, after the French had been massacred or expelled from Hispaniola, and the negroes under Toussaint were masters of the French part of the island, t was thought expedient by the American Government (Adams then the President) to send thither an agent, in the character of Consul General, and from my inquiries concerning Dr. Stevens, then in Philadelphia, he appeared in all respects singularly qualified for the office. He had long resided in the West Indies, understood the French language, was very intelligent, and a worthy man. With his brother-in-law, James Yard (for I understood they had married sisters, the daughters of the Governor Walterstorff of one of the Danish Islands), I

had a previous acquaintance; and to him I expressed my opinion of Dr. Stevens, from what I had heard of his character, from Mr. Yard, or some other source of information. The arrangements being thus far advanced, I said to Mr. Yard: "But I have not yet seen Dr. Stevens." Mr. Yard answered, "I will bring him to you." They came together to see me. At the first glance, I was struck with the extraordinary similitude of his and General Hamilton's faces; I thought they must be *brothers*. To-day, Mr. Yard informed me that the remark had been made a thousand times; that when young children, they lived together in the family of the father of Stevens, and were sent together to New York for their education. Conjecture here will suppose some secrets, which, if known, might account for the striking likeness of these two persons.

Mr. Hamilton, the reputed father of the General, became a planter in Granada. Whether he patronized, or in any way provided even for the education of Alexander, Mr. Yard did not know. An aunt of Alexander's came from the West Indies to New York, some years ago, and lived a good while in the family of Mrs. Hamilton, the General's widow. Thence the aunt (I think Mr. Yard called her name Mitchell) went to Burlington; where, becoming blind, a collection was made among some of Hamilton's friends, to enable her to go back to the West Indies. There is now in this city a person (I think Mr. Yard called him a merchant and pronounced his name, but which I do not recollect) Mr. Yard said, the son of another sister of General Hamilton's mother. — *From the Pickering MSS. vol. ii. p. 302; in possession of Mass. Hist. Soc.*

It does not, of course, in any way detract from Hamilton's fame or from his merits if any of these

stories should be true. It is needless to say that such a fact would not reflect upon him or upon those who bear his name, and have the honor to be descended from him. His rise was remarkable and was equally honorable to his talents and character when it is remembered that he came a stranger from an obscure island, one of the pettiest possessions of England, and that he made his way to the very highest rank in everything which he attempted, unsupported by wealth and unaided by family connections. If, in addition to all the difficulties which he overcame, that of illegitimacy be added, it is simply a new title to the respect of the world for his genius and force of character. One of the penalties of his greatness is the fact that thereby the question of his birth and parentage assumes considerable historical interest.

It may be said that Colonel Pickering's memoranda are mere gossip. Such they seem on their face, and nothing would be more distasteful to me than to print them, if they could thus be put aside. They could be condemned in this way if we had a clear, authentic, and well proved account of Hamilton's origin. As this is not the case, the memoranda of Colonel Pickering, taken in conjunction with the doubts expressed by Mr. Bancroft and the tradition familiar to students of our history, acquire an importance and interest which they would not otherwise possess, and which render it impossible silently to pass them over in any attempt to write Hamilton's life. To explain clearly what has just been said, it is necessary to look closely at the accepted account

and show briefly why it is of such a nature as to make doubts possible and give importance to Colonel Pickering's statements.

We are not told by Mr. John C. Hamilton, either in the first and unfinished life of his father or in his second elaborate and complete life, entitled the "History of the Republic," the Christian name of Hamilton's maternal grandfather, Mr. Faucette, or of Hamilton's mother, or of his mother's first husband. We are not told when or where Mrs. Hamilton was married to her first husband Lavine, from whom it is said she was divorced. Divorce was extremely rare in the colonies. In England and in the crown provinces it involved long, difficult, and expensive proceedings of the greatest publicity. We are not told when, where, how, or for what cause the divorce was obtained. We are not told when or where Mr. and Mrs. James Hamilton were married. In the first and unfinished life it is said that "there were several sons of whom Alexander was the youngest." In the "History of the Republic" it is stated that Hamilton was the only surviving child; and yet in the appendix to the same work a letter is given, to which I have already referred, written by Hamilton to a brother named James. If this contradiction is explained by a second marriage of Hamilton's father, it can only be said that there is no mention of such a marriage. In the first and unfinished life it is said that Hamilton was confided to the care of his mother's relatives, Mr. Peter Lytton and his sister, afterwards Mrs Mitchell. In the "History of the Republic,' Mr

Lytton and Mrs. Mitchell have disappeared and Hamilton's guardians are spoken of simply as his mother's relatives. From the Pickering memoranda we learn that Mrs. Mitchell came to this country and lived with Hamilton's widow, and that she was a sister of Hamilton's mother. Mr. Peter Lytton was therefore the brother of Hamilton's mother, and her maiden name must have been Lytton and not Faucette, unless there was a second marriage in this instance also, and the relationship between her and Lytton, therefore, only that of the half-blood. Mr. John C. Hamilton says that Hamilton's mother died while Alexander was still a child. Mr. Yard, on the other hand, who had married into a West Indian family, who was a close connection of Edward Stevens, Hamilton's earliest friend and school-fellow, and who was therefore in a position to know, says that Hamilton's mother was living in 1818. The unquestioned resemblance between Stevens and Hamilton would be of no great importance and might readily be dismissed as accidental were it not for the additional fact that they were educated, came to this country, and went to college together, and that, according to Mr. Yard, Hamilton was brought up in the Stevens family.

Enough has been said to show the cause of the doubts which have existed as to Hamilton's origin, and also the reason for the interest and importance which attach to the Pickering memoranda as the only evidence we have on the point from Hamilton's contemporaries, and which render their publication historically desirable and even necessary. All the evi-

dence has now been presented so far as I have been able to collect it, and the readers of this note can draw conclusions from it as well as I can. The various facts from the different sources cannot be reconciled with each other, or formed into a clear and coherent narrative as they stand, but this is probably owing to lack of fullness of statement.

The usually accepted version rests on the meagre statement of Hamilton himself which I have quoted, and on the vague and unsupported account given by Mr. John C. Hamilton. It may be said that the authority of Hamilton and of his son is enough on such a matter, and in the absence of convincing proof to the contrary, I have so treated it, and fully admitting the force of this argument, I have accepted their statement in this biography. As to the question of age, Hamilton himself could hardly have been much mistaken. He says he was sixteen when he came to this country, and I have no doubt that on any theory of his parentage this statement is correct, or very nearly so. He may fairly be accepted as one of the most remarkable examples of mental precocity of which we have any knowledge.

In conclusion, let me say more definitely if possible than I have yet done, that I have discussed this matter fully, and have printed this note and the Pickering memoranda, solely because I did not feel that it would have been honest for a biographer to suppress such new and important statements, however vague and inconclusive, in regard to the birth and parentage of a man who was so highly distinguished, and who left

such deep marks of his personal influence upon the history and institutions of the United States.

NOTE B.

The quarrel between Hamilton and Washington, which led to the former's leaving the staff of the commander-in-chief, has always been given an importance which perhaps does not properly belong to it. It has at all events always been fully discussed by every one who has had occasion to consider it, and I therefore shall be pardoned for adding some facts in regard to it which came to my knowledge after this volume was in the press. It is well known that Hamilton was not fully satisfied with his position on Washington's staff, and that he desired to be appointed adjutant-general, that he was pressed for this post by Lafayette ("Memoirs and Correspondence of Lafayette," vol. i. p. 366), and by General Greene (Hamilton's "History of the Republic," vol. i. p. 141), and that Lafayette subsequently wrote to him in a way which showed that his resignation from the staff had been contemplated for some time. ("Memoirs and Correspondence of Lafayette," vol. i. p. 302.)

I have been recently informed by a gentleman who is a most eminent historical authority, and who was a friend of the late Jared Sparks, that Mr. Sparks told him of a conversation which he had with Lafayette on this subject when the latter visited this country in 1825. Lafayette told Mr. Sparks that Hamilton had pressed Washington for another position; that

Washington had refused his request, as in the case of the adjutant-generalship, and that they had had two or three disagreements growing out of this wish of Hamilton's before the final breach at New Windsor. This statement shows that there were causes for the quarrel which did not appear on the surface, and that the separation was neither a new nor a sudden idea upon Hamilton's part at least.

INDEX.

ADAMS, John, elected Vice-President, 83; publishes "Discourses on Davila," and is attacked by Jefferson, 142; Federalist candidate for Presidency, 195; elected to the Presidency, 198; his party position and relations with Hamilton, 198–200; wishes another effort for peace with France, 202; his selection of Commissioners, 203, 204; conduct in affair of Major-Generals, 206, 207; suspects Hamilton of desire for military empire, 215; appointment of Murray, 217; enlarges the commission, 220; orders the envoys to go, 221; drives Pickering and McHenry from his Cabinet, 229, conduct toward, and treatment of Hamilton, 230, 231; again nominated for the Presidency, 232; attacked by Hamilton, 233.

Adams, John Quincy, writes essays signed "Publicola," 142.

Adams, Samuel, 75.

André, Major, Hamilton's pity for and account of, 20.

Annapolis, convention at, 55.

Arnold, Mrs. Benedict, Hamilton's interview with and account of, 20.

Asia, British man-of-war, fires on New York, 101.

Assumption of state debts, excitement about, 120; opposition to, 121, 122; defeated, 123; carried finally, 129.

BACHE, B. F., supports Genet, 170.

Bancroft, George, doubts as to date of Hamilton's birth, 235 ff.

Benson, Egbert, Hamilton's colleague at Annapolis, 55.

Bowdoin, James, puts down Shays' rebellion; efforts for a better government, 53.

Burr, Aaron, his alliance with the Livingstons, 82; opinion of Hamilton as a writer, 191, 276; success as a ward politician, 226; defeats Hamilton, 227; obtains a copy of Hamilton's pamphlet against Adams, 233; intrigue for Presidency, 235; defeated by Hamilton in intrigues with Federalists, 246; forces quarrel on Hamilton; character of, 247; prepares for the duel, 249; kills Hamilton, 250.

"CAMILLUS," Essays of, 191.

Carrington, Col. Edward, letter to Hamilton in 1793, 254.

"Christian Constitutional Society," Hamilton's plan for, 267.

Clinton, George, strength as a local leader, 52, resists demands of Congress, 56; leader against Constitution, 66; presides at State Convention, 71; defeats Hamilton for Congress, 80; defeats Yates for governorship, 81.

Coinage, question of device for, 130.

Confederacy, condition of in 1786, 50–52.

Congress, condition of in 1782, 36; influenced by Luzerne, 38; recommends grant to States, 40; threatened by mutineers; thanks Washington, 42; eagerness to refer matters to Hamilton, 85; resolves to fund foreign debt, 117; effort in, for discrimination in domestic debt, 118; adopts Hamilton's plan for funding domestic debt and arrears of interest, 120; defeats assumption, 123; debate in, as to device on coins, 130; attack in, on foreign relations, 174.

Cooper, Dr., saved from mob by Hamilton, 10, 11.

Croswell, Henry, prosecution of for libel, 239, 241.
Croucher, cross-examination of, in murder trial, 242; subsequent fate, 243, and note.

DAYTON, Jonathan, Hamilton's letter to, 224.
"Democratic Societies" broken up by Washington's message, 185.
Duane, James, Hamilton's letter to, on government, 28.

ENGLAND, treaty with, in 1782, 38; refuses to carry out treaty on account of non-payment of British debts, 48; relations with the United States in 1789, and subsequently, 155; effect of financial policy upon, 158; war with France, 161; stupid aggressions on our commerce, 174, 176; renewed during excitement over Jay treaty, 192; again renewed when United States on verge of war with France, 219.
Excise, Hamilton's plan for, 96–99; resistance to, 181 ff.

FAUCETTE, Mr., Hamilton's maternal grandfather, 294.
Fauchet, M., arrives as minister from France, 179.
"Federalist, The," value of, 68; literary merits of, 69.
Federalists carry through funding of domestic debt, 120; views as to forms and titles; carry national bank, 131; development of as a party, 136; defeat Giles's resolutions of censure, 150; foreign policy of, while in power, 163; vigorous measures against England, 177; a few come forward at once to sustain Jay treaty, 190; possible candidates of, for Presidency in 1796, 194; enthusiasm against France, 205; strong measures against France; popular support, 206; feeling of, in regard to appointment of Major-Generals, 207; effect of appointment of second peace commission upon, 218; anger against President; held in check by Hamilton, 220; results of their foreign policy, 221; results of their political supremacy, 222; give general support to alien and sedition laws, 223; dissensions among, 225; defeated in Presidential election; intrigues with Burr, 235; secession movement among, in New England, 246; devotion of, to Hamilton, 278.
"Fenno's Gazette," organ of Federalists, 148.
Fleming, Major, commands volunteer corps joined by Hamilton, 10.
France, attitude towards the Confederacy, 51; relations with United States in 1789, and subsequently, 155; public opinion in United States as to revolution in, 159, 160; war with England, 161; treatment of first peace commission, 205; second mission to, 217; Freneau, Philip, becomes editor of the "National Gazette," 143; attacked by Hamilton, 145; supports Genet, 170.

GALLATIN, Albert, deserted in Congress on publication of X. Y. Z. letters, 205.
Gates, Horatio, character; attitude after surrender of Burgoyne; Hamilton's mission to, 18, 19.
Genet, Edmond Charles, arrival of, 165; his character; fits out privateers; journey to Philadelphia, 167; sends out the "Little Sarah;" strives for money for France, 169; excites agitation in United States, 170; becomes more violent, 171; appeals to people against Washington, 172; replaced by Fauchet, 179.
Gerry, Elbridge, peace commissioner to France, 203.
Giles, William B., heads attack on Hamilton in Congress, 148; introduces resolutions of censure, and is defeated, 150; discomfited by X. Y. Z. letters, 205.
Greene, Nathansel, likes Hamilton, and introduces him to Washington, 13.

HAMILTON, Alexander, birth, 1; education; business, 2; writes an account of hurricane; leaves West Indies for Boston and New York, 3; school and college, 4, 5; espouses the cause of the Colonies, 6; speaks to the people at the meeting in the field, 7; writes two pamphlets on colonial side 8; their success; declines offers

from Tories, 9; joins volunteer corps; resists patriot mobs, 10, 11; raises and takes command of an artillery company, 12; meets Greene and Washington; covers retreat at Long island, 13; on the Hudson and in New Jersey; becomes a member of Washington's staff, 14; his views as to his new position; his duties as an aide, 15; his share in Washington's military correspondence, 16, 17; merits of his work as secretary; sent North for reënforcements, 18; mission to Gates, 19; sent to meet French at Newport; meeting with Mrs. Arnold and with André, 20; quarrels with Washington, 21, 22; leaves Washington's staff; storms British redoubt at Yorktown, 23; leaves the army, 24, his friendships in the army, and with the French officers, 25; his character as a soldier, 26; letter to Robert Morris on the currency and a bank, 27; letter to Duane on the government, 28; to Sears on government, 29; second letter to Morris, 30; marriage with Miss Schuyler, 32; studies law, 33; declines to be commissioner of French loan, 34; appointed receiver of taxes for New York, his services in that capacity, 35; elected to Congress, 36; energy of his efforts for improvement, 37; course as to treaty of peace, 38; efforts to obtain an impost from Rhode Island, 39; opposes the policy of recommending a grant, 40; efforts in behalf of the army, 41, 42; urges making debates public; withdraws from Congress, 43; his standing and effect in Congress, 44; effect of Congress upon the conservative tendencies of his mind, 45; beginning of his distrust of democracy, 46; defends loyalist client against Trespass Act, 47; advocates justice to loyalists in pamphlets, 48; opposes land bank scheme; aids in foundation of Cincinnati, 49; exertions for representation at Annapolis, 54; services at Annapolis; drafts address, 55; elected to the legislature; defeated by Clinton in efforts to sustain Congress, 56; obtains representation at constitutional convention in Philadelphia, and is chosen a delegate, 57; in the Philadelphia convention, 58; his speech, 59; his plan of government, 60; its leading features, 61; object of his speech, 62; withdraws from debates, and awaits result of convention, 68; gives his adhesion to the constitution, 64; begins the "Federalist," 66; share in writing "Federalist," 67; as a literary man, 70; services in state convention of New York, 71; again elected to Congress, 73; his eloquence and his victory in the New York Convention, 74–77; character of his eloquence, 77–80; defeated for reelection to Congress, 80; supports Yates for governor, 81; insists upon election of King as Senator, 82; appointed Secretary of the Treasury, 84; enters upon his duties, 85; numerous matters referred to him, 86; organization of Treasury Department, 87; the first report on the public credit, 88; objects of the report, 89–91; plans for funding, 92; the different classes of debts, 94; report on the excise, 96; report on the national bank, 99; argument in favor of constitutionality of national bank, 104; supports the doctrine of the implied powers of the constitution, 105; report on the mint, 106; monetary standard, 107; coinage, 108; report on manufactures, 108, 132; his opinions on protection and free trade, 109–114; character of the financial policy, 115; argument against discrimination, 119; forces relied on to carry assumption, 122; determines to save assumption by giving up site of federal city, 123; selects Jefferson to help him, 125; arrangement with Jefferson, 127; absurdity of charge that he duped Jefferson, 128; carries assumption, 129; suggestion for device on coins, 130; carries national bank, 131, 132; treatment of speculation, 133; mistake as to rate of interest, 133, 134; completion of the financial policy, 135; comes as leader to Federalists, 136; development of hostility to him and Federalists, 137; is attacked by opposition, and called

"British," 188; power attributed to, by opposition, 139; dissension begins in the cabinet, 140; concludes that Jefferson and Madison are organizing party against him, 143; replies to criticism of Mason, 144; attacks Freneau and Jefferson, 145; replies to Washington's remonstrance, 147; measures for redemption of debt, 148; attack upon him in Congress, 149; his defence, 150; effects of his victory, 151, 152; his policy as to first steps to establish proper foreign relations, 155; his views as to foreign policy, 156; as to different nations, 157; effect of financial policy on England, 157; takes part in negotiations with Hammond, 158; loses sympathy with French revolution, 160; sends for Washington on news of war between England and France; feeling as to the two countries, 161; opinion as to policy of United States as between belligerents, 162; share in neutrality policy, 163; views as to reception of minister, and as to treaties, 164–166; views as to French privateers and prizes, 167, 168; urges strong measures in case of the Little Sarah, 168; rebuffs Genet in attempts to anticipate payments, 169, 170; writes "Pacificus," in support of neutrality policy, 171; urges peremptory demand for recall of Genet, and publication of correspondence, 172; course in these complications, 173; opposes sending to Congress correspondence with Hammond, 175; replies to Madison on discriminating duties through Smith, 176; urges vigorous policy against England, 176; suggests special mission to England, and is urged as commissioner, 177; drafts Jay's instructions, 178; fitness of, for mission, 179; distrust of democracy increased by troubles with France, 180; deals with resistance to excise, 181; wishes to take strong measures, 182; efficiency in suppression of insurrection, 183; forbearance toward insurgents, 184; sustains Washington in denunciation of "Democratic Societies," 185; demands further inquiry into his conduct; leaves the cabinet, 186; opinion as to public feeling about Jay's negotiation 188; reported opinion as to treaty. 189; attempts to speak at public meeting in defence of the treaty, 190; writes "Camillus" in defence of the treaty, 191; indignant with England, 192; advises with and sustains Washington as to ratification of Jay treaty, 193; qualifications for candidacy for Presidency, 194; has no desire to be a candidate, 195; urges policy of voting equally for Adams and Pinckney, 196; preference for Pinckney, 197; relations with Adams, 198; opinion of Adams, 199; Hamilton easy to deal with, 200; attempt to force Adams through cabinet and leaders in Congress, 201; urges special mission to France, 202; views as to composition of peace commission, 203; wishes strong instructions, 204; affair of the Major-Generals, 206, 207; his conduct, 208; organization of the army, 209; advises Secretaries of War, Navy, and Treasury, 210; excellence of his work of organization, 211; plan for campaign, and views as to control of Mississippi and conquest of Louisiana, 212, 213; desires an ascendant for the United States in North and South America, 214; relations with Miranda, 215, 216; does not wish alliance with England, 218; his theory of policy to be pursued at this time, 219; checks extreme Federalists, and advises strengthening of the commission, 220; urges delay upon Adams, 221; opposes first drafts of alien and sedition laws, 223; but sustains their principle, and urges a spirited policy, 224; hostility to Kentucky and Virginia resolutions, 225; throws himself into New York elections, 226; defeated by Burr; proposition to Jay, 227; nature of this proposition, and its bad character, 228; inquiries of Adams as to charge of "British Faction," 230; urges an equal vote for Adams and Charles Pinckney; preference for the latter, 232; attacks Adams, 233; relations with Adams's cabinet, 234; resistance to Burr, and to efforts of Federalists to make

Burr President, 236; absorption in his profession, and increased success, 237, position as a lawyer, 238; the Croswell case, 239-241, the murder trial and cross-examination of Croucher, 242; effectiveness with a jury, 243; character of his eloquence, 244; gradual withdrawal from politics, but continues the leader of the Federalists, 245; baffles Burr's intrigues with the Federalists, 246; accepts Burr's challenge, 247; relations with Burr under the "code," 248; generosity to Burr; prepares for the duel, 249; mortally wounded; death, 250; statement of reasons against fighting, 251; opinions which led him to believe it necessary to fight, 252; fears about results of French revolution in 1789, 253; inquiries as to public sentiment in Virginia, 254; belief in existence of dangerous elements in the United States, 255; grounds of opposition to French revolution, 256; fears outbreaks in New York, 257; national spirit in foreign policy, 258, 259; opposed to hasty alliance with England; refuses appointment to the Senate, 260; danger of French influence, 261; dislike of geographical parties, 262; reliance on the army; advises energetic policy in 1799, 263; wishes to prosecute a newspaper for libel, 264; despondency; letter to Morris, 265; policy for Federalists in 1802, 266; plan for a "Christian Constitutional Society," 267, 268; appeal to New England Federalists against secession, 269, nature of the crisis which he apprehended, 270; a victim to reaction against French revolutionary principles, 271; personal appearance, 272, 273; beloved in private life; generosity, 274; self-confidence; letter to the Senate, 275; strength of his passions; opinion of his abilities held by his opponents, 276; devotion of his party; lack of skill in managing men, 278; independence and courage; Reynolds pamphlet, 279; nature of his ambition, 280; his achievements; representative of ideas; opposition to democracy, 281; intensity of his national feeling, 282; influence upon our history and institutions, 283; his position in history, 284; question as to birth and parentage, 284-297, leaving Washington's staff not a sudden idea, 297.

Hamilton, James, brother of Alexander, 288.

Hamilton, John C., account of his father's birth and parentage 294 ff.

Hammond, George, arrives as minister from England, 158.

Hancock, John, strength as a local leader, 52; resignation of governorship, 53; at convention, 75.

Higginson, Stephen, unites with Hamilton in opposing policy of recommending grants, 40.

Implied powers of the Constitution, Hamilton's defence of, 105.

Jay, John, assists Hamilton in writing "Federalist," 67; supports Hamilton in state convention, 71; sent as special commissioner to England, 178; popular demonstrations against his appointment, 188; popular feeling against his treaty, 189; his treaty ratified, 193; candidacy for Presidency, 194, 195; refuses to accede to Hamilton's proposition. 227.

Jefferson, Thomas, arrival in America, 125; uncertain as to course to adopt, 126; helps Hamilton to carry assumption, 127; his explanation of the affair, 128; argues against constitutionality of national bank; plan of "allowances," 132; assumes leadership of opposition, 139, 140; secret hostilities against administration and building up of opposition, 141; attacks John Adams, 142; founds "National Gazette," 143; insinuations to Washington, 143, 144; attacked by Hamilton, 145; feels the attacks keenly, 146; reply to Washington's remonstrance, 147; plans attack on Hamilton's character, 148; disappointment at his failure, 152; failure to obtain commercial treaty when in France, 155; love for France and hatred of England, 161; desires close connection with France, 166; opposes compensa-

tion for French prizes, 168; feebleness in case of the Little Sarah, 169; intercourse with Genet, 171–174; objects to appeal to people, 172; course in troubles with Genet, 173; defeated as to calling Congress, 174; correspondence with Genet and Hammond and report on commerce: leaves cabinet, 175; opposes proclamation against excise, 182; disturbed by essays of "Camillus," 191; elected Vice-President, 197; overwhelmed by publication of X. Y. Z. letters, 205; draws Kentucky resolutions, 225; determines on ruin of Burr, 246; opinion as to Hamilton's abilities, 276; skill in managing men, 278; ideas represented by, 288.

KENT, JAMES, description of Hamilton in the Croswell case, 240; opinion as to Hamilton's abilities, 277.

Kentucky, resolutions of, in 1799, 225.

King, Rufus, chosen Senator from New York, 82; consulted by Hamilton as to Miranda, 216.

Knox, Henry, urges strong measures in case of the Little Sarah, 168; conduct in affair of Major-Generals, 207.

Knox, Hugh Dr., friend and adviser of Hamilton, 3.

LA FAYETTE, MARQUIS DE, account of Hamilton's leaving Washington's staff, 297.

Lansing, John, Jr., chosen delegate to Philadelphia Convention, 57; leaves Philadelphia Convention, 63; opposes constitution in state convention, 71.

Laurens, John, Colonel, admiration of Hamilton's writings, 17; Hamilton withdraws in his favor for commissionership of French loan, 34.

Lewis, Morgan, opposes election of King as Senator, 82; decision in Croswell case, 239, 240; elected Governor of New York, 246.

Little Sarah, case of the, 168.

Livingston, Robert R., plan for a land bank, 49; supports Hamilton in state convention, 71.

Livingstons, their opposition to the election of King as Senator, 82.

Long Island, Hamilton at battle of, 13.

Lytton, Peter, Hamilton's uncle, 294.

MADISON, JAMES, his standing in Congress in 1782, 36; assists in writing "Federalist," 67; advocates discrimination in domestic debt; begins to separate from Federalists, 119; argues against constitutionality of national bank; plan of allowances, 132; helps Jefferson organize opposition, 143; plans attack on Hamilton, 148; votes for resolutions of censure, 150; resolutions for discriminating duties, 175; resists selection of Hamilton for English mission, 178; unwilling to write against Hamilton, 191.

Manufactures, Hamilton's report on, 108–114.

Marshall, John, opinion as to constitutionality of national bank 104; peace commissioner to France, 203; return from France, 205; sustains Adams, 225; ranks Hamilton next to Washington, 284.

Maryland, convention with Virginia, 54.

Mason, Colonel, his criticism on Washington's administration, 143.

Massachusetts, movement in for a better general government, 53; constitutional convention in, 75.

McHenry, James, his account of Hamilton in Congress, 43; leans on Hamilton for advice in French war, 210.

Mint, Hamilton's report on the, 106.

Miranda, Francisco de, plans for revolution in South America, 214; relations with Hamilton, 215, 216.

Mitchell Mrs., aunt of Hamilton, 289, 292, 294.

"Monroe Doctrine," established by Washington's administration, 153, 163.

Monroe, James, opposes selection of Hamilton for mission to England, 178; career in France, 201; connection with the "Reynolds" affair, 279.

Morris, Gouverneur, opinion of Hamilton's speech in Philadelphia convention, 59; warns Hamilton of difficulties of Treasury

Department, 84; opinion as to importance of finance, 115.
Morris, Robert, Hamilton's letter on currency to, 27; Hamilton's second letter to, on bank, 30; appoints Hamilton receiver of taxes for New York, 35; urges Hamilton for Secretary of Treasury, 84.
Murray, William Vans, peace commissioner to France, 217.

National Bank, Hamilton's report on, 99, Hamilton's argument in favor of its constitutionality, 104; carried, 131; struggle over, in cabinet, 132.
"National Gazette," founded and attacks administration, 143.
Newburgh, condition of army at, and addresses from, 41.
New Jersey, gives general powers to Annapolis delegates, 55.
New Windsor, Hamilton's quarrel with Washington at, 21.
New York, feeling in, against the Tories, 46; selfishness of, in regard to general government, 54; importance of adhesion of, to Constitution, 65; party feeling in, as to constitution, 66; state convention of, 71; difficulties of carrying constitution in, 74, 75; unrepresented in first electoral college and Congress, 81; efforts of Burr to get control of, 246.
Nicholas, John, amendment for hostile discrimination against England, 176.
North Carolina, opposition of, to constitution, 76; resistance to excise, 181; ceases, 182.

"Pacificus," essays of, 171
Pennsylvania, fails to protect Congress against mutineers, 42; resistance to excise, 181; becomes more violent, 182; lost to Federalists, 226.
Philadelphia, constitutional convention at, in 1787, 57, 58.
Pinckney, Charles Cotesworth, minister to France, refused a reception, 201; peace commissioner to France, 203; conduct in affair of Major-Generals, 207; nominated for Vice-Presidency, 232; conduct at Presidential election, 235.
Pinckney, Thomas, qualifications for candidacy for Presidency, 194; Federalist candidate for Vice-Presidency, 195, 196; defeated for Vice-Presidency, 197.
Pickering, Timothy, leader of most extreme war-Federalists, 202; attacks upon Adams; driven from cabinet, 229; memoranda as to Hamilton's parentage, 289.
"Publius," essays of, 66.
Putnam, Israel, General, hurried forward with his troops by Hamilton, 19.

Randolph, Edmund, at Annapolis convention, 55; argues against constitutionality of bank, 132.
Republicans, name assumed by opposition, 141.
Reynolds, Mrs., affair of, 279.
Rivington, printer, destruction of his press, 11.
Rhode Island, refuses to grant impost, 39; refuses to call constitutional convention, 76.

Schuyler, Miss Elizabeth, receives from Hamilton an account of Mrs. Arnold and of André, 20; marries Hamilton, 32.
Schuyler, General Philip, position and character, 32; his offers to assist Hamilton, 33; elected Senator from New York, 82.
Sears, Isaac, Hamilton's letter to, on government, 29.
Shays' rebellion in Massachusetts, 53.
Smith, Melancthon, heads opposition to constitution in New York state convention, 71; convinced by Hamilton, 73.
Smith, William, speech on discriminating duties, 176.
Smith, William, Colonel, Adams asks Hamilton's assistance for, 230.
Spain, attitude toward the confederacy, 51; relations with United States in 1789 and subsequently, 155.
Spencer, Ambrose, opinion of, as to Hamilton's abilities, 276.
Stevens, Edward, Hamilton's letter to, 2; resemblance to Hamilton, 289 ff., 295.

Talleyrand, Charles Maurice de, alarmed at attitude of United States and seeks peace, 217.
Thurman, life of, saved by Hamilton, 11.

"Travis's mob," 11.
Trenton and Princeton, Hamilton in campaign of, 14.
Troup, Robert, helps Hamilton to save Dr. Cooper, 10; warns Hamilton of difficulties of Treasury Department, 84.

UNITED STATES, foreign relations of, 153 ff.; opinion as to French revolution at its opening, 159, change of opinion, 160; excitement in, caused by Genet, 170; excitement in, on reception of Jay's treaty, 189; indignation in, on publication of X. Y. Z. letters, 205; feeling in, on death of Hamilton, 250.

VIRGINIA, withdraws from impost, 40; efforts for retaliation upon England, 53; convention with Maryland; resolutions for convention at Annapolis, 54; convention of, to adopt constitution, 75; resistance to excise, 181; ceases, 182; resolutions of, in 1799, 225.

WASHINGTON, city of, question of site for, 124; fixed on Potomac, 129.
Washington, Fort, Hamilton's offer to storm it, 14.
Washington, George, Hamilton presented to him, 13; invites Hamilton to join his staff, 14; military correspondence, 15, 17; sends to Gates for troops, 18; approves Hamilton's conduct of mission to Gates, 20; treatment of Hamilton when the latter quarrels with him, 21; and subsequently, 22; and at Yorktown, 23, efforts in behalf of the army; checks movement against government at Newburgh, 41; influence in Virginia, 75; elected President, 83; decision as to national bank, 132; said to have been blinded by Hamilton, 139; submits Mason's criticism to Hamilton, 144; troubled by Hamilton's attack upon Jefferson, and remonstrates with both, 147; his foreign policy, 153, 154; loses sympathy with French revolution, 160, neutrality policy, 163; adopts Hamilton's opinions as to French prizes and privateers, 168; indignation at escape of the Little Sarah, 169; sympathizes with Hamilton about Genet, 173; transmits to Congress Hammond correspondence, 175; approves plan of special mission to England, 177; wishes to send Hamilton but appoints Jay, 178; issues proclamation against excise, 182; puts down "whiskey rebellion," 183, denounces "Democratic Societies," 185, composure in midst of excitement about Jay treaty, 190, 192; ratifies the treaty, 193, withdraws from politics, 194; relations with Hamilton, 200; appointed commander-in-chief of provisional army; opinion as to rank of officers, 206; forces Adams to give Hamilton the first place, 208.
Webster, Daniel, compared to Hamilton, 277.
West Point, betrayal of, 20; question of purchase of, referred to Hamilton, 86; Hamilton's plan for an academy, 210.
"Whiskey rebellion," the, 181 ff.
White Plains, Hamilton at battle of, 14.

"X. Y. Z." correspondence sent to Congress, 204.

YARD, JAMES, account of Hamilton's birth and parentage, 289 ff
Yates, Chief Justice, chosen delegate to Philadelphia convention, 57; leaves Philadelphia convention, 63; opposes constitution in state convention, 71; nominated for governor by Federalists, 81
Yorktown, Hamilton at siege of, 23

American Statesmen.

A Series of Biographies of Men conspicuous in the Political History of the United States.

EDITED BY

JOHN T. MORSE, JR.

The object of this series is not merely to give a number of unconnected narratives of men in American political life, but to produce books which shall, when taken together, indicate the lines of political thought and development in American history, — books embodying in compact form the result of extensive study of the many and diverse influences which have combined to shape the political history of our country.

The series is under the editorship of Mr. JOHN T. MORSE, JR., whose historical and biographical writings give ample assurance of his special fitness for this task. The volumes now ready are as follows: —

John Quincy Adams. By JOHN T. MORSE, JR.
Alexander Hamilton. By HENRY CABOT LODGE.
John C. Calhoun. By DR. H. VON HOLST.
Andrew Jackson. By PROF. W. G. SUMNER.
John Randolph. By HENRY ADAMS.
James Monroe. By PRES. DANIEL C. GILMAN.
Thomas Jefferson. By JOHN T. MORSE, JR.
Daniel Webster. By HENRY CABOT LODGE.
Albert Gallatin. By JOHN AUSTIN STEVENS.

IN PREPARATION.

James Madison. By SIDNEY HOWARD GAY.
Patrick Henry. By PROF. MOSES COIT TYLER.
Henry Clay. By HON. CARL SCHURZ.

Others to be announced hereafter. Each biography occupies a single volume, 16mo, gilt top. Price $1.25.

ESTIMATES OF THE PRESS.

"JOHN QUINCY ADAMS."

That Mr. Morse's conclusions will in the main be those of posterity we have very little doubt, and he has set an admirable example to his coadjutors in respect of interesting narrative, just proportion, and judicial candor. — *New York Evening Post.*

The work is done in a vigorous and every way admirable manner, which it is not too much to say touches the high mark of impartial but appreciative history. — *Independent* (New York).

Mr. Morse has written closely, compactly, intelligently, fearlessly, honestly. — *New York Times.*

"ALEXANDER HAMILTON."

The biography of Mr. Lodge is calm and dignified throughout. He has the virtue — rare indeed among biographers — of impartiality. He has done his work with conscientious care, and the biography of Hamilton is a book which cannot have too many readers It is more than a biography; it is a study in the science of government. — *St. Paul Pioneer-Press.*

Mr. Lodge's portrait of Hamilton is carefully, impartially, and skilfully painted, and his study of the epoch in which Hamilton was dominant is luminous and comprehensive. — *Philadelphia North American.*

"JOHN C. CALHOUN."

Dr. von Holst's volume is certainly not the least valuable of the three that constitute the series, so far as it has at present progressed; and of the series, as a whole, it may be said that if the succeeding volumes are of the same high order of excellence as those that have already appeared they will serve a valuable purpose, not only as exemplifying American statesmen, but as a means of training in statesmanship. — *Boston Journal.*

Nothing can exceed the skill with which the political career of the great South Carolinian is portrayed in these pages. The work is superior to any other number of the series thus far, and we do not think it can be surpassed by any of those that are to come. The whole discussion in relation to Calhoun's position is eminently philosophical and just. — *The Dial* (Chicago).

"ANDREW JACKSON."

Prof. Sumner has written what we think may rightly be called an impartial life of perhaps the strongest personality that was ever elected President, and yet he has not made his story dull. He has, . . . all in all, made the justest long estimate of Jackson that has had itself put between the covers of a book. — *New York Times.*

Professor Sumner's account and estimate of Andrew Jackson as a statesman is one of the most masterly monographs that we have ever had the pleasure of reading. It is calm and clear. — *Providence Journal.*

A book of exceptional value to students of politics. — *Congregationalist* (Boston).

"JOHN RANDOLPH."

The book has been to me intensely interesting. I have been especially struck by the literary and historical merit of the first two chapters: they are terse; full of picture, suggestion, life; with fine strokes of satire and humor. The book is rich in new facts and side lights, and is worthy of its place in the already brilliant series of monographs on American Statesmen. I heartily congratulate Mr. Morse over the solid success the series has already won. — Prof. MOSES COIT TYLER.

Remarkably interesting. . . . The biography has all the elements of popularity, and cannot fail to be widely read. — *Hartford Courant.*

A most lively and interesting volume. — *New York Tribune.*

"JAMES MONROE."

In clearness of style, and in all points of literary workmanship, from cover to cover, the volume is well-nigh perfect. There is also a calmness of judgment, a correctness of taste, and an absence of partisanship which are too frequently wanting in biographies, and especially in political biographies. — *American Literary Churchman* (Baltimore).

At last the character of this distinguished statesman has received justice at the hands of the historian. His biographer has written the most satisfactory account of the life of this illustrious man which has been given the country. — *San Francisco Bulletin.*

A volume which gives an excellent and well-proportioned outline of the eminent statesman's career. — *Boston Journal.*

"THOMAS JEFFERSON."

The requirements of political biography have rarely been met so satisfactorily as in this memoir of Jefferson. . . . Mr. Morse has shown himself amply competent for the task, and he has given us a singularly just, well-proportioned and interesting sketch of the personal and political career of the author of the Declaration of Independence. — *Boston Journal.*

The book is exceedingly interesting and readable. The attention of the reader is strongly seized at once, and he is carried along in spite of himself, sometimes protesting, sometimes doubting, yet unable to lay the book down. — *Chicago Standard.*

"DANIEL WEBSTER."

The massiveness of Mr. Lodge's subject, the compass and high significance of many of the single themes with which he has had to labor, and the voluminous amount of the material requiring his critical study would seem to have demanded a singular skill of compression in bringing the results within this small volume. Yet the task has been achieved ably, admirably, and faithfully. — *Boston Transcript.*

It will be read by students of history; it will be invaluable as a work of reference; it will be an authority as regards matters of fact and criticism; it hits the key-note of Webster's durable and ever-growing fame; it is adequate, calm, impartial; it is admirable. — *Philadelphia Press.*

"ALBERT GALLATIN."

The greater part of Mr. Stevens's frank, simple, and straightforward book is devoted to a careful narrative of Gallatin's financial administration, and next in importance to this is the excellent chapter devoted to Gallatin's brilliant diplomatic services. The study of an honorable and attractive character is completed by some interesting pages of personal and domestic history. — *New York Tribune.*

It is one of the most carefully prepared of these very valuable volumes, . . . abounding in information not so readily accessible as is that pertaining to men more often treated by the biographer. . . . The whole work covers a ground which the political student cannot afford to neglect. — *Boston Correspondent Hartford Courant.*

**** *For sale by all Booksellers. Sent by mail, post-paid, on receipt of price by the Publishers,*

HOUGHTON, MIFFLIN AND COMPANY, BOSTON.

Standard and Popular Library Books

SELECTED FROM THE CATALOGUE OF

HOUGHTON, MIFFLIN AND COMPANY.

JOHN ADAMS and Abigail Adams.
Familiar Letters of, during the Revolution. 12mo, $2.00.

Louis Agassiz.
Methods of Study in Natural History. Illus. 16mo, $1.50.
Geological Sketches. First Series. 16mo, $1.50.
Geological Sketches. Second Series. 16mo, $1.50.
A Journey in Brazil. Illustrated. 8vo, $5.00.

Thomas Bailey Aldrich.
Story of a Bad Boy. Illustrated. 12mo, $1.50.
Marjorie Daw and Other People. 12mo, $1.50.
Prudence Palfrey. 12mo, $1.50.
The Queen of Sheba. 16mo, $1.50.
The Stillwater Tragedy. 12mo, $1.50.
From Ponkapog to Pesth. 16mo, $1.25.
Cloth of Gold and Other Poems. 12mo, $1.50.
Flower and Thorn. Later Poems. 16mo, $1.25.
Poems, Complete. Illustrated. 8vo, $5.00.
Mercedes, and Later Lyrics. 16mo, $1.25.

American Commonwealths.
Edited by HORACE E. SCUDDER.
Virginia. By John Esten Cooke.
Oregon. By William Barrows.
(*In Preparation.*)
South Carolina. By Hon. W. H. Trescot.
Kentucky. By N. S. Shaler.
Maryland. By Wm. Hand Browne.
Pennsylvania. By Hon. Wayne MacVeagh.
Each volume, 16mo, $1.25.
Others to be announced hereafter.

American Men of Letters.

Edited by CHARLES DUDLEY WARNER.

Washington Irving. By Charles Dudley Warner.
Noah Webster. By Horace E. Scudder.
Henry D. Thoreau. By Frank B. Sanborn.
George Ripley. By O. B. Frothingham.
J. Fenimore Cooper. By Prof. T. R. Lounsbury.

(*In Preparation.*)

Ralph Waldo Emerson. By Oliver Wendell Holmes.
Nathaniel Hawthorne. By James Russell Lowell.
Margaret Fuller. By T. W. Higginson.
Edmund Quincy. By Sidney Howard Gay.
William Cullen Bryant. By John Bigelow.
Bayard Taylor. By J. R. G. Hassard.
William Gilmore Simms. By George W. Cable.
Benjamin Franklin. By John Bach McMaster.
Edgar Allan Poe. By George E. Woodberry.
Each volume, with Portrait, 16mo, $1.25.

Others to be announced hereafter.

American Statesmen.

Edited by JOHN T. MORSE, Jr.

John Quincy Adams. By John T. Morse, Jr.
Alexander Hamilton. By Henry Cabot Lodge.
John C. Calhoun. By Dr. H. von Holst.
Andrew Jackson. By Prof. W. G. Sumner.
John Randolph. By Henry Adams.
James Monroe. By Pres. D. C. Gilman.
Thomas Jefferson. By John T. Morse, Jr.
Daniel Webster. By Henry Cabot Lodge.
Albert Gallatin. By John Austin Stevens.

(*In Preparation.*)

James Madison. By Sidney Howard Gay.
Patrick Henry. By Prof. Moses Coit Tyler.
Henry Clay. By Hon. Carl Schurz.
Each volume, 16mo, $1.25.

Others to be announced hereafter.

Mrs. Martha Babcock Amory.

Life of John Singleton Copley. 8vo, $3.00.

Hans Christian Andersen.

Complete Works. 10 vols. crown 8vo, each $1.50.

Francis, Lord Bacon.

Works. Collected and edited by Spedding, Ellis, and Heath. 15 vols. crown 8vo, $33.75.

Popular Edition. With Portraits and Index. 2 vols. crown 8vo, $5.00.

Promus of Formularies and Elegancies. 8vo, $5.00.

Life and Times of Bacon. Abridged. By James Spedding. 2 vols. crown 8vo, $5.00.

William Henry Bishop.

The House of a Merchant Prince. A Novel. 12mo, $1.50.

Detmold. A Novel. 18mo, $1.25.

Björnstjerne Björnson.

Norwegian Novels. 7 vols., 16mo, each $1.00.

British Poets.

Riverside Edition. Crown 8vo, each $1.75; the set, 68 vols. $100.00.

Akenside and Beattie, 1 vol.
Ballads, 4 vols.
Burns, 1 vol.
Butler, 1 vol.
Byron, 5 vols.
Campbell and Falconer, 1 vol.
Chatterton, 1 vol.
Chaucer, 3 vols.
Churchill, Parnell, and Tickell, 2 vols.
Coleridge and Keats, 2 vols
Cowper, 2 vols.
Dryden, 2 vols.
Gay, 1 vol.
Goldsmith and Gray, 1 vol.
Herbert and Vaughan, 1 vol.
Herrick, 1 vol.
Hood, 2 vols.
Milton and Marvell, 2 vols.
Montgomery, 2 vols.
Moore, 3 vols.
Pope and Collins, 2 vols.
Prior, 1 vol.
Scott, 5 vols.
Shakespeare and Jonson, 1 vol.
Shelley, 2 vols.
Skelton and Donne, 2 vols.
Southey, 5 vols.

Spenser, 3 vols.
Swift, 2 vols.
Thomson, 1 vol.
Watts and White, 1 vol.
Wordsworth, 3 vols.
Wyatt and Surrey, 1 vol.
Young, 1 vol.

John Brown, M. D.

Spare Hours. 3 vols. 16mo, each $1.50.

Robert Browning.

Poems and Dramas, etc. 15 vols. 16mo, $20.50.
Complete Works. *New Edition.* 7 vols. crown 8vo, $12.00.
Jocoseria. New Poems. 16mo, $1.00. Crown 8vo, $1.60.

William Cullen Bryant.

Translation of Homer. The Iliad. 1 vol. crown 8vo, $3.00. 2 vols. royal 8vo, $9.00; crown 8vo, $4.50.
The Odyssey. 1 vol. crown 8vo, $3.00. 2 vols. royal 8vo, $9.00; crown 8vo, $4.50.

Sara C. Bull.

Life of Ole Bull. Portrait and illustrations. 8vo, $2.50.

John Burroughs.

Wake-Robin. Illustrated.
Winter Sunshine.
Birds and Poets.
Locusts and Wild Honey.
Pepacton, and Other Sketches.
Each volume, 16mo, $1.50.

Thomas Carlyle.

Essays. With Portrait and Index. 4 vols. 12mo, $7.50.
Popular Edition. 2 vols. 12mo, $3.50.

Alice and Phœbe Cary.

Poems. *Household Edition.* 12mo, $2.00.
Library Edition. Portraits and 24 illustrations. 8vo, $4.00.
Poetical Works, including Memorial by Mary Clemmer. 8vo, full gilt, $4.00.

Lydia Maria Child.

Looking toward Sunset. 12mo, $2.50.
Letters. With Biography by Whittier. 16mo, $1.50.

James Freeman Clarke.

Ten Great Religions. 8vo, $3.00.
Ten Great Religions. Part II. Comparison of all Religions. 8vo, $3.00.
Common Sense in Religion. 12mo, $2.00.
Memorial and Biographical Sketches. 12mo, $2.00.

James Fenimore Cooper.

Works. *Household Edition.* Illustrated. 32 vols. 16mo, each $1 00; the set, $32.00.
Globe Edition. Illustrated. 16 vols. 16mo, $20.00. (*Sold only in sets.*)
Sea Tales. Illustrated. 10 vols. 16mo, $10.00.
Leather-Stocking Tales. *Household Edition.* Illustrated. 5 vols. 16mo, $5.00.

M. Creighton.

The Papacy during the Reformation. 2 vols. 8vo, $10.00.

Richard H. Dana.

To Cuba and Back. 16mo, $1.25.
Two Years before the Mast. 16mo, $1.50.

Thomas De Quincey.

Works. *Riverside Edition.* 12 vols. 12mo, each $1.50; the set, $18.00.
Globe Edition. 6 vols. 16mo, $10.00. (*Sold only in sets.*)

Madame De Staël.

Germany. 12mo, $2.50.

Charles Dickens.

Works. *Illustrated Library Edition.* With Dickens Dictionary. 30 vols. 12mo, each $1.50; the set, $45.00.
Globe Edition. 15 vols. 16mo, each $1.25.

J. Lewis Diman.

The Theistic Argument, etc. Crown 8vo, $2.00.
Orations and Essays. Crown 8vo, $2.50.

F. S. Drake.

Dictionary of American Biography. 8vo, $6.00.

Charles L. Eastlake.

Hints on Household Taste. Illustrated. 8vo, $3.00.
Notes on the Louvre and Brera Galleries. Small 4to, $2.00.

George Eliot.

The Spanish Gypsy. A Poem. 16mo, $1.50.

Ralph Waldo Emerson.

Works. *Riverside Edition.* 11 vols. each $1.75; the set, $19.25.
"*Little Classic*" *Edition.* 11 vols. 18mo, each, $1.50.
Parnassus. *Household Edition.* 12mo, $2.00.
Library Edition. 8vo, $4.00.

F. de S. de la Motte Fénelon.

Adventures of Telemachus. 12mo, $2.25.

James T. Fields.

Yesterdays with Authors. 12mo, $2.00. 8vo, $3.00.
Underbrush. 18mo, $1.25.
Ballads and other Verses. 16mo, $1.00.
The Family Library of British Poetry. Royal 8vo, $5.00.
Memoirs and Correspondence. 8vo, $2.00.

John Fiske.

Myths and Mythmakers. 12mo, $2.00.
Outlines of Cosmic Philosophy. 2 vols. 8vo, $6.00.
The Unseen World, and other Essays. 12mo, $2.00.
Excursions of an Evolutionist. 12mo, $2.00.

Dorsey Gardner.

Quatre Bras, Ligny and Waterloo. 8vo, $5.00.

Johann Wolfgang von Goethe.

Faust. Part First. Metrical Translation, by C. T. Brooks. 16mo, $1.25.
Faust. Translated by Bayard Taylor. 1 vol. crown 8vo, $3.00. 2 vols. royal 8vo, $9.00; crown 8vo, $4.50.
Correspondence with a Child. 12mo, $1.50.
Wilhelm Meister. Translated by Carlyle. 2 vols. 12mo, $3.00.

Arthur Sherburne Hardy.

But Yet a Woman. 16mo. $1.25.

Bret Harte.

Works. *New Edition.* 5 vols. Crown 8vo, each $2.00.
Poems. *Household Edition.* 12mo, $2.00. *Red Line Edition.* Small 4to, $2.50. *Diamond Edition,* $1.00.

Nathaniel Hawthorne.

Works. *"Little Classic" Edition.* Illustrated. 25 vols. 18mo, each $1.00; the set $25.00.
Fireside Edition. Illus. 13 vols. 16mo, the set, $21.00.
Globe Edition. Illustrated. 6 vols. 16mo, the set, $10.00.
New Riverside Edition. Introductions by G. P. Lathrop 11 Etchings and Portrait. 12 vols. crown 8vo, each $2.00.

George S. Hillard.

Six Months in Italy. 12mo, $2.00.

Oliver Wendell Holmes.

Poems. *Household Edition.* 12mo, $2.00.
Illustrated Library Edition. 8vo, $4.00.
Handy-Volume Edition. 2 vols, 18mo, $2.50.
The Autocrat of the Breakfast-Table. Crown 8vo, $2.00.
Handy-Volume Edition. 18mo, $4.25.
The Professor at the Breakfast-Table. Crown 8vo, $2.00.
The Poet at the Breakfast-Table. Crown 8vo, $2.00.
Elsie Venner. Crown 8vo, $2.00.
The Guardian Angel. Crown 8vo, $2.00.
Medical Essays. Crown 8vo, $2.00.
Pages from an old Volume of Life. Crown 8vo, $2.00.
John Lothrop Motley. A Memoir. 16mo, $1.50.

Augustus Hoppin.

A Fashionable Sufferer. 12mo, $1.50.
Recollections of Auton House. 4to, $1.25.

William D. Howells.

Venetian Life. 12mo, $1.50.
Italian Journeys. 12mo, $1.50.
Their Wedding Journey. Illus. 12mo, $1.50; 18mo, $1.25.
Suburban Sketches. Illustrated. 12mo, $1.50.
A Chance Acquaintance. Illus. 12mo, $1.50; 18mo, $1.25.

A Foregone Conclusion. 12mo, $1.50.
The Lady of the Aroostook. 12mo, $1.50.
The Undiscovered Country. 12mo, $1.50.
Poems. 18mo, $1.25.
Out of the Question. A Comedy. 18mo, $1.25.
A Counterfeit Presentment. 18mo, $1.25.
Choice Autobiography. Edited by W. D. Howells. 8 vols. 18mo, each $1.25.

Thomas Hughes.

Tom Brown's School-Days at Rugby. 16mo, $1.00.
Tom Brown at Oxford. 16mo, $1.25.
The Manliness of Christ. 16mo, $1.00; paper, 25 cents.

William Morris Hunt.

Talks on Art. Series I. and II. 8vo, each $1.00.

Henry James, Jr.

A Passionate Pilgrim and other Tales. 12mo, $2.00.
Transatlantic Sketches. 12mo, $2.00.
Roderick Hudson. 12mo, $2.00.
The American. 12mo, $2.00.
Watch and Ward. 18mo, $1.25.
The Europeans. 12mo, $1.50.
Confidence. 12mo, $1.50.
The Portrait of a Lady. 12mo, $2.00.

Mrs. Anna Jameson.

Writings upon Art Subjects. 10 vols. 18mo, each $1.50.

Sarah Orne Jewett.

Deephaven. 18mo, $1.25.
Old Friends and New. 18mo, $1.25.
Country By-Ways. 18mo, $1.25.
Play-Days. Stories for Children. Square 16mo, $1.50.
The Mate of the Daylight. 18mo, $1.25.

Rossiter Johnson.

Little Classics. Eighteen handy volumes containing the choicest Stories, Sketches, and short Poems in English Literature. Each in one vol. 18mo, $1.00; the set, $18.00. 9 vols., square 16mo, $13.50. (*Sold only in sets.*)

Samuel Johnson.

Oriental Religions: India, 8vo, $5.00. China, 8vo, $5.00. Persia, 8vo. (*In Press.*)
Lectures, Essays, and Sermons. Crown 8vo, $1.75.

T. Starr King.

Christianity and Humanity. With Portrait. 16mo, $2.00.
Substance and Show. 16mo, $2.00.

Lucy Larcom.

Poems. 16mo, $1.25.
An Idyl of Work. 16mo, $1.25.
Wild Roses of Cape Ann and other Poems. 16mo, $1.25.
Breathings of the Better Life. 16mo, $1.25.

George Parsons Lathrop.

A Study of Hawthorne. 18mo, $1.25.
An Echo of Passion. 16mo, $1.25.

Charles G. Leland.

The Gypsies. Crown 8vo, $2.00.

George Henry Lewes.

The Story of Goethe's Life. Portrait. 12mo, $1.50.
Problems of Life and Mind. 5 vols. 8vo, $14.00.

Henry Wadsworth Longfellow.

Poems. *Cambridge Edition.* Portrait. 4 vols. 12mo, $9.00. 2 vols. 12mo, $7.00.
Octavo Edition. Portrait and 300 illustrations. $8.00.
Household Edition. Portrait. 12mo, $2.00.
Red-Line Edition. Portrait and 12 illus. Small 4to, $2.50.
Diamond Edition. $1.00.
Library Edition. Portrait and 32 illustrations. 8vo, $4.00.
Christus. *Household Edition*, $2.00; *Diamond Edition*, $1.00.
Prose Works. *Cambridge Edition.* 2 vols. 12mo, $4.50.
Hyperion. A Romance. 16mo, $1.50; paper, 15 cents.
Kavanagh. 16mo, $1.50.
Outre-Mer. 16mo, $1.50; paper, 15 cents.
In the Harbor. Portrait. 16mo, $1.00.

Michael Angelo; a Drama. Illustrated. Folio, $7.50.
Twenty Poems. Illustrated. Small 4to, $4.00.
Translation of the Divina Commedia of Dante. 1 vol. cr. 8vo, $3.00. 3 vols. royal 8vo, $13.50; cr. 8vo, $6.00.
Poets and Poetry of Europe. Royal 8vo, $5.00.

James Russell Lowell.

Poems. *Red-Line Edition.* Portrait. Illus. Small 4to, $2.50.
Household Edition. Portrait. 12mo, $2.00.
Library Edition. Portrait and 32 illustrations. 8vo, $4.00.
Diamond Edition. $1 00.
Fireside Travels. 12mo, $1.50.
Among my Books. Series I. and II. 12mo, each $2.00.
My Study Windows. 12mo, $2.00.

Thomas Babington Macaulay.

England. *Riverside Edition.* 4 vols. 12mo, $5.00.
Essays. Portrait. *Riverside Edition.* 3 vols. 12mo, $3.75.
Speeches and Poems. *Riverside Edition.* 12mo, $1.25.

Harriet Martineau.

Autobiography. Portraits and illus. 2 vols. 8vo, $6.00.
Household Education. 18mo, $1.25.

Owen Meredith.

Poems. *Household Edition.* Illustrated. 12mo, $2.00.
Library Edition. Portrait and 32 illustrations. 8vo, $4.00.
Shawmut Edition. 16mo, $1.50.
Lucile. *Red-Line Edition.* 8 illustrations. Small 4to, $2.50.
Diamond Edition. 8 illustrations. $1.00.

J. W. Mollett.

Illustrated Dictionary of Words used in Art and Archæology. Small 4to, $5.00.

Michael de Montaigne.

Complete Works. Portrait. 4 vols. 12mo, $7.50.

William Mountford.

Euthanasy. 12mo, $2.00.

T. Mozley.

Reminiscences of Oriel College, etc. 2 vols. 16mo, $3.00.

Elisha Mulford.

The Nation. 8vo, $2.50.
The Republic of God. 8vo, $2.00.

T. T. Munger.

On the Threshold. 16mo, $1.00.
The Freedom of Faith. 16mo, $1.50.

J. A. W. Neander.

History of the Christian Religion and Church, with Index volume, 6 vols. 8vo, $20.00; Index alone, $3.00.

Charles Eliot Norton.

Notes of Travel and Study in Italy. 16mo, $1.25.
Translation of Dante's New Life. Royal 8vo, $3.00.

Francis W. Palfrey.

Memoir of William Francis Bartlett. 16mo, $1.50.

James Parton.

Life of Benjamin Franklin. 2 vols. 8vo, $4.00.
Life of Thomas Jefferson. 8vo, $2 00.
Life of Aaron Burr. 2 vols. $4.00.
Life of Andrew Jackson. 3 vols. 8vo, $6.00.
Life of Horace Greeley. 8vo, $2.50.
General Butler in New Orleans. 8vo, $2.50.
Humorous Poetry of the English Language. 8vo, $2.00.
Famous Americans of Recent Times. 8vo, $2.00.
Life of Voltaire. 2 vols. 8vo, $6.00.
The French Parnassus. 12mo, $2.00; crown 8vo, $3.50.

Blaise Pascal.

Thoughts, Letters, and Opuscules. 12mo, $2.25.
Provincial Letters. 12mo, $2.25.

Elizabeth Stuart Phelps.

The Gates Ajar. 16mo, $1.50.
Beyond the Gates. 16mo, $1.25.
Men, Women, and Ghosts. 16mo, $1.50.
Hedged In. 16mo, $1.50.

The Silent Partner. 16mo, $1.50.
The Story of Avis. 16mo, $1.50.
Sealed Orders, and other Stories. 16mo, $1.50.
Friends; A Duet. 16mo, $1.25.
Doctor Zay. 16mo, $1.25.
Poetic Studies. Square 16mo, $1.50.

Carl Ploetz.

Epitome of Ancient, Mediæval and Modern History. (*In Press.*)

Adelaide A. Procter.

Poems. *Diamond Edition.* $1.00.
Red-Line Edition. Portrait and illus. Small 4to, $2.50.

Henry Crabb Robinson.

Diary, Reminiscences, etc. Crown 8vo, $2.50.

A. P. Russell.

Library Notes. Crown 8vo, $2.00.
Characteristics. Crown 8vo, $2.00.

John Godfrey Saxe.

Works. Portrait. 16mo, $2.25.
Poems. *Red-Line Edition.* Illustrated. Small 4to, $2.50.
Diamond Edition. $1.00.
Household Edition. 12mo, $2.00.

Sir Walter Scott.

Waverley Novels. *Illustrated Library Edition.* 25 vols. 12mo, each $1.00; the set, $25.00.
Globe Edition. 100 illustrations. 13 vols. 16mo, $16.25.
Tales of a Grandfather. *Library Edition.* 3 vols. 12mo, $4.50.
Poems. *Red-Line Edition.* Illustrated. Small 4to, $2.50.
Diamond Edition. $1.00.

Horace E. Scudder.

The Bodley Books. Illus. 7 vols. Small 4to, each $1.50.
The Dwellers in Five-Sisters' Court. 16mo, $1.25.
Stories and Romances. 16mo, $1.25.
Dream Children. Illustrated. 16mo, $1.00.

Seven Little People. Illustrated. 16mo, $1.00.
Stories from my Attic. Illustrated. 16mo, $1.00.
The Children's Book. Illustrated. 4to, 450 pages, $3.50.
Boston Town. Illustrated. 12mo, $1.50.

W. H. Seward.

Works. 5 vols. 8vo, $15.00.
Diplomatic History of the War. 8vo, $3.00.

John Campbell Shairp.

Culture and Religion. 16mo, $1.25.
Poetic Interpretation of Nature. 16mo, $1.25.
Studies in Poetry and Philosophy. 16mo, $1.50.
Aspects of Poetry. 16mo, $1.50.

William Shakespeare.

Works; edited by R. G. White. *Riverside Edition.* 3 vols. crown 8vo, each, $2.50.
The Same. 6 vols. 8vo, $15.00.

Dr. William Smith.

Bible Dictionary. *American Edition.* The set, 4 vols. 8vo, $20.00.

James Spedding.

Evenings with a Reviewer. 2 vols. 8vo, $7.00.

Edmund Clarence Stedman.

Poems. *Farringford Edition.* Portrait. 16mo, $2.00.
Victorian Poets. 12mo, $2.00.
Hawthorne, and other Poems. 16mo, $1.25.
Edgar Allan Poe. An Essay. Vellum, 18mo, $1.00.
Elizabeth Barrett Browning. An Essay. 18mo, 75cts.

Harriet Beecher Stowe.

Agnes of Sorrento. 12mo, $1.50.
The Pearl of Orr's Island. 12mo, $1.50.
The Minister's Wooing. 12mo, $1.50.
The May-flower, and other Sketches. 12mo, $1.50.
Nina Gordon. 12mo, $1.50.
Oldtown Folks. 12mo, $1.50.
Sam Lawson's Fireside Stories. Illustrated. 12mo, $1.50.

Uncle Tom's Cabin. 100 Illustrations. 12mo, $3.50.
Popular Edition. 12mo, $2.00.

Bayard Taylor.

Poetical Works. *Household Edition.* 12mo, $2.00.
Dramatic Works. 12mo, $2.25.
The Echo Club. 18mo, $1.25.

Alfred Tennyson.

Poems. *Household Edition.* Portrait and illus. 12mo, $2.00.
Illustrated Crown Edition. 2 vols. 8vo, $5.00.
Library Edition. Portrait and 60 illustrations. 8vo, $4.00.
Red-Line Edition. Portrait and illus. Small 4to, $2.50.
Diamond Edition. $1.00.
Shawmut Edition. Illustrated. 16mo, $1.50.
Idylls of the King. Illustrated. 12mo, $1.50.

Celia Thaxter.

Among the Isles of Shoals. 18mo, $1.25.
Poems. Small 4to, $1.50.
Drift-Weed. Poems. 18mo, $1.50.
Poems for Children. Illustrated. Small 4to, $1.50.

Henry D. Thoreau.

Works. 8 vols. 12mo, each $1.50; the set, $12.00.

George Ticknor.

History of Spanish Literature. 3 vols. 8vo, $10.00.
Life, Letters, and Journals. Portraits. 2 vols. 8vo, $6.00.
Cheaper Edition. 2 vols. 12mo, $4.00.

J. T. Trowbridge.

A Home Idyl. 16mo, $1.25.
The Vagabonds. 16mo, $1.25.
The Emigrant's Story. 16mo, $1.25.

Herbert Tuttle.

History of Prussia. Crown 8vo, $2.25.

Jones Very.

Poems. With Memoir. 16mo, $1.50.

F. M. A. de Voltaire.

History of Charles XII. 12mo, $2.25.

Lew Wallace.

The Fair God. A Novel. 12mo, $1.50.

Charles Dudley Warner.

My Summer in a Garden. 16mo, $1.00.
Illustrated Edition. Square 16mo, $1.50.
Saunterings. 18mo, $1.25.
Back-Log Studies. Illustrated. Square 16mo, $1.50.
Baddeck, and that sort of Thing. 18mo, $1.00.
My Winter on the Nile. Crown 8vo, $2.00.
In the Levant. Crown 8vo, $2.00.
Being a Boy. Illustrated. Square 16mo, $1.50.
In the Wilderness. 18mo, 75 cents.
A Roundabout Journey. 12mo, $1.50.

William A. Wheeler.

Dictionary of Noted Names of Fiction. 12mo, $2.00.

Edwin P. Whipple.

Literature and Life.
Essays and Reviews. 2 vols.
Character and Characteristic Men.
The Literature of the Age of Elizabeth.
Success and its Conditions.
6 vols. crown 8vo, each $1.50.

Richard Grant White.

Every-Day English. 12mo, $2.00.
Words and their Uses. 12mo, $2.00.
England Without and Within. 12mo, $2.00.

Mrs. A. D. T. Whitney.

Faith Gartney's Girlhood. 12mo, $1.50.
Hitherto. 12mo, $1.50.
Patience Strong's Outings. 12mo, $1.50.
The Gayworthys. 12mo, $1.50.
Leslie Goldthwaite. Illustrated. 12mo, $1.50.
We Girls. Illustrated. 12mo, $1.50.

Real Folks. Illustrated. 12mo, $1.50.
The Other Girls. Illustrated. 12mo, $1.50.
Sights and Insights. 2 vols. 12mo, $3.00.
Odd or Even. 12mo, $1.50.
Boys at Chequasset. 12mo, $1.50.
Mother Goose for Grown Folks. 12mo, $1.50.
Zerub Throop's Experiment. 12mo, $1.50. (*In Press.*)
Pansies. Square 16mo, $1.50.
Just How. 16mo, $1.00.

John Greenleaf Whittier.

Poems. *Household Edition.* Portrait. 12mo, $2.00.
Cambridge Edition. Portrait. 3 vols. 12mo, $6.75.
Red-Line Edition. Portrait. Illustrated. Small 4to, $2.50.
Diamond Edition. $1.00.
Library Edition. Portrait. 32 illustrations. 8vo, $4.00.
Prose Works. *Cambridge Edition.* 2 vols. 12mo, $4.50.
John Woolman's Journal. Introduction by Whittier. $1.50.
Child Life in Poetry. Selected by Whittier. Illustrated. 16mo, $2.25. Child Life in Prose. 16mo, $2.25.
The Bay of Seven Islands. Portrait. 16mo, $1.00.
Songs of Three Centuries. Selected by J. G. Whittier.
Household Edition. 12mo, $2.00.
Illustrated Library Edition. 32 illustrations. 8vo, $4.00.

J. A. Wilstach.

Translation of Virgil's Works. 2 vols. cr. 8vo, $5.00.

Justin Winsor.

Reader's Handbook of American Revolution. 16mo, $1.25.

J. H. D. Zschokke.

Meditations on Life, Death, and Eternity. Cr. 8vo, $2.00.

A catalogue containing portraits of many of the above authors, with a description of their works, will be sent free, on application, to any address.

HOUGHTON, MIFFLIN AND COMPANY,
4 PARK ST., BOSTON. 11 EAST 17TH ST., NEW YORK.

UNIVERSAL
LIBRARY

138 264

UNIVERSAL
LIBRARY

the large volcanic islands of the group, and place their big villages over the sea on low coral reefs. The sandy beaches of the shore hold their coco-palms, whose nuts by their milk eke out the scanty supply of drinking water, and whose fronds shade the tombs of the dead.[10] The sea-faring Malays of the Sunda Islands, in thickly populated points of the coast, often dwell in permanently inhabited rafts moored near the pile dwellings. Palembang on the lower swampy course of the River Musi has a floating suburb of this sort. It is called the "Venice of Sumatra," just as Banjarmasin, a vast complex of pile and raft dwellings, is called the "Venice of Borneo," and Brunei to the north is the "Venice of the East."[11] Both these towns are the chief commercial centers of their respective islands. The little town of Kilwaru, situated on a sandbank off the eastern end of Ceram, seems to float on the sea, so completely has it surrounded and enveloped with pile-built houses the few acres of dry land which form its nucleus. It is a place of busy traffic, the emporium for commerce between the Malay Archipelago and New Guinea.[12]

In Melanesia.

Farther east in Melanesia, whose coast regions are more or less permeated by Malayan stock and influences, pile dwellings, both over water and on land form a characteristic feature of the scenery. The village of Sowek in Geelvink Bay, on the northern coast of Dutch New Guinea, consists of thirty houses raised on piles above the water, connected with each other by tree trunks but having only boat connection with the shore. Similar villages are found hovering over the lapping waves of Humboldt Bay, all of them recalling with surprising fidelity the prehistoric lake-dwellings of Switzerland.[13] The Papuan part of Port Moresby, on the southern coast of British New Guinea, covers the whole water-front of the town with pile dwellings. In the vicinity are similar native pile villages, such as Tanobada, Hanuabada, Elevara and Hula, the latter consisting of pile dwellings scattered about over the water in a circuit of several miles and containing about a thousand inhabitants. Here, too, the motive is protection against the attacks of inland mountain tribes, with whom the coast people are in constant war.[14]

The Malay fisherman, trader and pirate, with the love of the sea in his blood, by these pile dwellings combines security from his foe and proximity to his familiar field of activity. The same objects are achieved by white traders on the west coast of Africa by setting up their dwellings and warehouses on the old hulks of dismasted vessels, which are anchored for this purpose in the river mouths. They afford some protection against both fever and hostile native, and at the same time occupy the natural focus of local trade seeking foreign exchanges.

River dwellers in populous lands.

When advancing civilization has eliminated the need for this form of protection, water-dwellers may survive or reappear in old and relatively over-populated countries, as we find them universally on the rivers of China and less often in Farther India. Here they present the phenomenon of human life overflowing from the land to the streams of the country; because these, as highways of commerce, afford a means of livelihood, even apart from the food supply in their fish, and offer an unclaimed bit of the earth's surface for a floating home. Canton has 250,000 inhabitants living on boats and rafts moored in the river, and finding occupation in the vast inland navigation of the Empire, or in the trade which it brings to this port of the Si-kiang. Some of the boats accommodate large families, together with modest poultry farms, crowded together under their low bamboo sheds. Others are handsome wooden residences ornamented with plants, and yet others are pleasure resorts with their professional singing girls.[15] In the lakes and swamp-bordered rivers of southern Shantung, a considerable fishing population is found living in boats, while the land shows few inhabitants. This population enjoys freedom from taxation and unrestricted use of the rivers and fisheries. To vary their scant and monotonous diet, they construct floating gardens on rafts of bamboo covered with earth, on which they plant onions and garlic and which they tow behind their boats. They also raise hundreds of ducks, which are trained to go into the water to feed and return at a signal,[16] thus expanding the resources of their river life. Bangkok has all its business district afloat on the Menam

River—shops, lumber yards, eating-houses and merchants' dwellings. Even the street vendor's cart is a small boat, paddled in and out among the larger junks.[17]

A far more modern type of river-dwellers is found in the "shanty-boat" people of the western rivers of the United States. They are the gypsies of our streams, nomads who float downstream with the current, tying up at intervals along the bank of some wooded island or city waterfront, then paying a tug to draw their house-boat upstream. The river furnishes them with fish for their table and driftwood for their cooking-stove, and above all is the highway for the gratification of their nomad instincts. There is no question here of trade and overpopulation.

Reclamation of land from the sea.

Pile dwellings and house-boats are a paltry form of encroachment upon the water in comparison with that extensive reclamation of river swamps and coastal marshes which in certain parts of the world has so increased the area available for human habitation. The water which is a necessity to man may become his enemy unless it is controlled. The alluvium which a river deposits in its flood-plain, whether in some flat stretch of its middle course or near the retarding level of the sea, attracts settlement because of its fertility and proximity to a natural highway; but it must be protected by dikes against the very element which created it. Such deposits are most extensive on low coasts at or near the river's mouth, just where the junction of an inland and oceanic waterway offers the best conditions for commerce. Here then is a location destined to attract and support a large population, for which place can be made only by steady encroachment upon the water of both river and sea. Diking is necessitated not only by the demand for more land for the growing population, but also by the constant silting up of the drainage outfalls, which increases the danger of inundation while at the same time contributing to the upbuilding of the land. Conditions here institute an incessant struggle between man and nature;[18] but the rewards of victory are too great to count the cost. The construction of sea-walls, embankment of rivers, reclamation of marshes, the cutting of canals for drains and passways in a water-soaked land,

the conversion of lakes into meadow, the rectification of tortuous streams for the greater economy of this silt-made soil, all together constitute the greatest geographical transformation that man has brought about on the earth's surface.[19]

The struggle with the water.

Though the North Sea lowland of Europe has suffered from the serious encroachment of the sea from the thirteenth to the sixteenth century, when the Zuyder Zee, the Dollart and Jade Bay were formed, nevertheless the counter encroachment of the land upon the water, accomplished through the energy and intelligence of the inhabitants, has more than made good the loss. Between the Elbe and Scheldt more than 2,000 square miles (5,000 square kilometers) have been reclaimed from river and sea in the past three hundred years. Holland's success in draining her large inland waters, like the Haarlem Meer (70 square miles or 180 square kilometers) and the Lake of Ij, has inspired an attempt to recover 800 square miles (2,050 square kilometers) of fertile soil from the borders of the Zuyder Zee and reduce that basin to nearly one-third of its present size.[20] One-fourth of the Netherlands lies below the average of high tides, and in 1844 necessitated 9,000 windmills to pump the waste water into the drainage canals.[21]

The Netherlands, with all its external features of man's war against the water, has its smaller counterpart in the 1,200 square miles of reclaimed soil about the head of the Wash, which constitute the Fenland of England. Here too are successive lines of sea-wall, the earliest of them attributed to the Romans, straightened and embanked rivers, drainage canals, windmills and steam pumps, dikes serving as roads, lines of willows and low moist pastures dotted with grazing cattle. No feature of the Netherlands is omitted. The low southern part of Lincolnshire is even called Holland, and Dutch prisoners from a naval battle of 1652 were employed there on the work of reclamation, which was begun on a large scale about this time.[22] In the medieval period, the increase of population necessitated measures to improve the drainage and extend the acreage; but there was little co-operation among the land owners, and the maintenance of river dikes and sea-walls was neglected, till a succession of

disasters from flooding streams and invading tides in the thirteenth and fourteenth centuries led to severe measures against defaulters. One culprit was placed alive in a breach which his own neglect or criminal cutting had caused, and was built in, by way of educating the Fenlanders to a sense of common responsibility.[23]

The fight against the water on the coast begins later than that against rivers and swamps in the interior of the land; it demands greater enterprise and courage, because it combats two enemies instead of one; but its rewards are correspondingly greater. The Netherlands by their struggle have acquired not only territory for an additional half million population, but have secured to themselves a strategic position in the maritime trade of the world.

Mound villages in river flood-plains.

The abundant fertility of river flood-plains inevitably attracts population and necessitates some kind of artificial protection against inundation. The most primitive form of this protection is obvious and widespread, restricted in neither locality nor race. When the flood season converts the flat plain of the White Nile below Gondokora (7° N. Lat.) into an extensive marsh, countless hills of the white ant emerge over the waters. During the dry season, the ants build up their hills to about ten feet, and then live in safety in the upper section during the flood. They greatly surpass in intelligence and constructive ability the human occupants of the valley, the low and wretched Kytch tribe of the Dinka Negroes, who like the ants are attracted by the natural vegetation of the flood-plain, and who use the ant-hills as refuge stations for themselves and their cattle during the flood.[24] Elsewhere in Africa the natives are more intelligent, for flood-plain villages built on artificial mounds have existed from the earliest times. Diodorus Siculus tells us that those of ancient Egypt, when the Nile was high, looked like the Cyclades Islands.[25] Similar ones are constructed by the Barotse tribe on the upper Zambesi.[26] The Niger River, rising in the Foota Jallon and Kong Mountains which form a region of heavy rainfall from February to July, inundates a plain of several thousand square miles for a distance of 250 miles above Tim-

buctoo. Here again the villages of the agricultural Songhoi duplicate those of Egypt, built on the same clay mounds, wreathed in the same feathery palms, and communicating with one another only by small boats.[27] The same picture is presented by the Yangtze Kiang plain during the summer overflow—low artificial hills rising from the expanse of muddy water and topped with trees and villages, while sampans moored to their base show the means of communication.[28] In the broad flood-plain of the lower Mississippi River, the chronicles of the De Soto expedition state that the Indian villages visited stood "on mounds made by art." The Yazoo River Indians, at the commencement of the eighteenth century, had their cabins dispersed over the low deltaic land on earthen mounds made by their own hands. There is also strong evidence that some of the works of the Mound-builders in the "bottoms" of the middle and lower Mississippi served as protected sites for the dwellings of their chiefs.[29]

Diking of rivers.

Such meager provisions against inundation suffice for the sparse population characterizing the lower stages of civilization, but they must be supplemented for the increasing density of higher stages by the embankment of the stream, to protect also the adjacent fields. Hence the process of confining rivers within dikes goes back into gray antiquity. Those of the Po and its tributaries were begun before the political history of the Lombardy plains commenced. Strabo mentions the canals and dikes of Venetia, whereby a part of the country was drained and rendered tillable.[30] The main Po has been embanked for centuries as far up as Cremona, a distance of 600 miles, and the Adige to Verona.[31] But the most gigantic dike system in the world is that of the Hoangho, by which a territory the size of England is won from the water for cultivation.[32] The cost of protecting the far spread crops against the autumn floods has been a large annual expenditure and unceasing watchfulness; and this the Chinese have paid for two thousand years, but have not always purchased immunity. Year by year the Yellow River mounts higher and higher on its silted bed above the surrounding lowlands, increasing the strain on the banks and the area of destruction, when its fury is uncaged. The flood of 1887

covered an area estimated at 50,000 square miles, wiped out of existence a million people, and left a greater number a prey to famine.[33] So the fertile Chengtu plain of the Min River, supporting four millions of people on its 2,500 square miles of area, owes its prosperity to the embanking and irrigating works of the engineer heroes, Li Ping and his son, who lived before the Christian era. On the temple in their honor in the city of Kuan Hsien is Li Ping's motto, incised in gold: "Dig the bed deep, keep the banks low." For twenty-one centuries these instructions have been carried out. The stone dikes are kept low to permit a judicious amount of flooding for fertilization, and every year five to six feet of silt are removed from the artificial channel of the Min. To this work the whole population of the Chengtu plain contributes.[34] [See map page 8.]

Social gain by control of the water.

In such organized struggles to reduce the domain of the water and extend that of the dry land, the material gain is not all: more significant by far is the power to co-operate that is developed in a people by a prolonged war against overwhelming sea or river. A common natural danger, constantly and even regularly recurring, necessitates for its resistance a strong and sustained union, that draws men out of the barren individualism of a primitive people, and forces them without halt along the path of civilization. It brings a realizing sense of the superiority of common interests over individual preferences, strengthens the national bond, and encourages voluntary subservience to law.

This is the social or political gain; but this is not all. The danger emanating from natural phenomena has its discoverable laws, and therefore leads to a first empirical study of winds, currents, seasonal rainfall and the whole science of hydraulics. With deep national insight, the Greeks embodied in their mythology the story of Perseus and his destruction of the sea monster who ravaged the coast, and Hercules' killing of the many-headed serpent who issued from the Lernean Marshes to lay waste the country of Argos. Even so early a writer as Strabo states that yet earlier authorities interpreted Hercules' victory over the river god of the Achelous as the embankment of that stream and the draining of

its inundated delta tract by the national benefactor.[35] So the Chinese, whose land abounds in swamps and devastating rivers, have a long list of engineer heroes who embanked and drained for the salvation and benefit of mankind. It is highly probably that the communal work involved in the construction of dikes and canals for the control of the Hoangho floods cemented the Chinese nationality of that vast lowland plain, and supplied the cohesive force that developed here at a very remote period a regularly organized state and an advancing civilization.

Control of water as factor in early civilizations of arid lands.

The history of Egypt shows a similar effect of the yearly inundation of the Nile Valley. Here, as in all rainless countries where irrigation must be practiced, the water becomes a potent factor of political union and civilization. Its scarcity necessitates common effort in the construction and maintenance of irrigation works, and a central control to secure fair distribution of the water to the fields of the inhabitants. A stimulus to progress is found in the presence of a problem, perennial as the yearly threatenings of the Hoangho, which demands the application of human intelligence and concerted labor for its solution. Additional arable land for the growing population can be secured only by the wider distribution of the fructifying water; this in turn depends upon corporate effort wisely directed and ably controlled. Every lapse in governmental efficiency means an encroachment of the desert upon the alluvial fields and finally to the river bank, as to-day in Mesopotamia.

The fact that the earliest civilizations have originated in the sub-tropical rainless districts of the world has been ascribed solely to the regular and abundant returns to tillage under irrigation, as opposed to the uncertain crops under variable meteorological conditions; to the consequent accumulation of wealth, and the emancipation of man for other and higher activities, which follows his escape from the agricultural vicissitudes of an uncertain climate. When Draper says: "Civilization depends on climate and agriculture," and "the civilization of Egypt depended for its commencement on the sameness and stability of the African climate," and again, "agriculture is certain in Egypt and there man

first became civilized,"[36] he seizes upon the conspicuous fact of a stable food supply as the basis of progress, failing to detect those potent underlying social effects of the inundations—social and political union to secure the most effective distribution of the Nile's blessings and to augment by human devices the area accessible to them, the development of an intelligent water economy, which ultimately produced a long series of intellectual achievements.[37]

Cultural areas in primitive America.

This unifying and stimulating national task of utilizing and controlling the water was the same task which in various forms promoted the early civilization of the Hoangho and Yangtze basins, India, Mesopotamia, Persia, Peru, Mexico, and that impressive region of prehistoric irrigation canals found in the Salt, Gila River, and upper Rio Grande valleys.[38] Here the arid plateaus of the Cordilleras between the Pueblo district and Central America had no forests in which game might be found; so that the Indian hunter had to turn to agriculture and a sedentary life beside his narrow irrigated fields. Here native civilization reached its highest grade in North America. Here desert agriculture achieved something more than a reliable food supply. It laid the foundation of the first steady integration of wandering Indian hordes into a stable, permanently organized society. Elsewhere throughout the North American continent, we see only shifting groups of hunter and fisher folk, practising here and there a half nomadic agriculture to supplement the chase.

The primitive American civilization that arose among the Pueblo Indians of New Mexico and Arizona, the only strictly sedentary tribes relying exclusively on agriculture north of the Mexican plateau, was primarily a result of the pressure put upon these people by a restricted water supply.[39] Though chiefly offshoots of the wild Indians of the northern plains, they have been markedly differentiated from their wandering Shoshone and Kiowa kindred by local environment.[40] Scarcity of water in those arid highlands and paucity of arable land forced them to a carefully organized community life, made them invest their labor in irrigation ditches, terraced gardens and walled orchards, whereby they were as firmly rooted in their scant but fertile fields as were their

cotton plants and melon vines;[41] while the towering mesas protected their homes against marauding Ute, Navajo and Apache.[42] This thread of a deep underlying connection between civilization and the control of water can be traced through all prehistoric America, as well as through the earliest cultural achievements in North Africa and Asia.

Economy of the water: fisheries.

The economy of the water is not confined to its artificial distribution over arid fields, but includes also the exploitation of the mineral and animal resources of the vast world of waters, whether the production of salt from the sea, salt lakes and brine springs, the cultivation of oyster beds, or the whole range of pelagic fisheries. The animal life of the water is important to man owing not only to its great abundance, but also to its distribution over the coldest regions of the globe. It furnishes the chief food supply of polar and sub-polar peoples, and therefore is accountable for the far-northern expansion of the habitable world. Even the reindeer tribes of Arctic Eurasia could hardly subsist without the sea food they get by barter from the fishermen of the coast. Norway, where civilization has achieved its utmost in exploiting the limited means of subsistence, shows a steady increase from south to north in the proportion of the population dependent upon the harvest of the deep. Thus the fisheries engross 44 per cent. of the rural population in Nordland province, which is bisected by the Arctic Circle; over 50 per cent. in Tromso, and about 70 per cent. in Finmarken. If the towns also be included, the percentages rise, because here fishing interests are especially prominent.[43] Proximity to the generous larder of the ocean has determined the selection of village sites, as we have seen among the coast Indians of British Columbia and southern Alaska, among all the Eskimo, and numerous other peoples of Arctic lands. [See map page 153.]

Fisheries as factors in maritime expansion.

Not only in polar but also in temperate regions, the presence of abundant fishing grounds draws the people of the nearest coast to their wholesale exploitation, especially if the land resources are scant. Fisheries then become the starting point or permanent basis of a subsequent wide maritime development, by expanding the geographical horizon. It was

the search for the purple-yielding *murex* that first familiarized the Phœnicians with the commercial and colonial possibilities of the eastern Mediterranean coasts.[44] The royal dye of this marine product has through all the ages seemed to color with sumptuous magnificence the sordid dealings of those Tyrian traders, and constituted them an aristocracy of merchants. The shoals of tunny fish, arriving every spring in the Bosporus, from the north, drew the early Greeks and Phœnicians after them into the cold and misty Euxine, and furnished the original impulse to both these peoples for the establishment of fishing and trading stations on its uncongenial shores.[45] To the fisheries of the Baltic and especially to the summer catch of the migratory herring, which in vast numbers visited the shores of Pomerania and southern Sweden to spawn, the Hanse Towns of Germany owed much of their prosperity. Salt herring, even in the twelfth century, was the chief single article of their exchanges with Catholic Europe, which made a strong demand for the fish, owing to the numerous fast days. When, in 1425, by one of those unexplained vagaries of animal life, the herring abandoned the Baltic and selected the North Sea for its summer destination, a new support was given to the wealth of the Netherlands.[46] There is a considerable amount of truth in the saying that Amsterdam was built on herrings. New England, with an unproductive soil at home, but near by in the sea a long line of piscine feeding grounds in the submarine banks stretching from Cape Cod to Cape Race and beyond, found her fisheries the starting point and base of her long round of exchanges, a constant factor in her commercial and industrial evolution.[47]

Fisheries as nurseries of seamen.

Fisheries have always been the nurseries of seamen, and hence have been encouraged and protected by governments as providing an important element of national strength. The Newfoundland Banks were the training school which supplied the merchant marine and later the Revolutionary navy of colonial New England;[48] ever since the establishment of the Republic, they have been forced into prominence in our international negotiations with the United Kingdom, with the object of securing special privileges, because the government

has recognized them as a factor in the American navy. The causal connection between fisheries and naval efficiency was recognized in England in the early years of Elizabeth's reign, by an act aiming to encourage fisheries by the remission of custom duties to native fishermen, by the imposition of a high tariff on the importation of foreign fish in foreign vessels, and finally by a legislative enforcement of fasts to increase the demand for fish, although any belief in the religious efficacy of fasts was frankly disclaimed. Thus an artificial demand for fish was created, with the result that a report on the success of the Fishery Acts stated that a thousand additional men had been attracted to the fishing trade, and were consequently "ready to serve in Her Majesty's ships." [49]

The fishing of the North Sea, especially on the Dogger Bank, is participated in by all the bordering countries, England, the Netherlands, Germany and Belgium; and is valued equally on account of the food supply which it yields and as a school of seamen.[50] The Pomors or "coasters" of Arctic Russia, who dwell along the shores of the White Sea and live wholly by fisheries, have all their taxes remitted and receive free wood from the crown forests for the construction of their ships, on the condition that they serve on call in the imperial navy.[51] The history of Japan affords the most striking illustration of the power of fisheries alone to maintain maritime efficiency; for when by the seclusion act of 1624 all merchant vessels were destroyed, the marine restricted to small fishing and coasting vessels, and intercourse confined to Japan's narrow island world, the fisheries nevertheless kept alive that intimacy with the sea and preserved the nautical efficiency that was destined to be a decisive factor in the development of awakened Japan.

Anthropogeographic importance of navigation.

The resources of the sea first tempted man to trust himself to its dangerous surface; but their rewards were slight in comparison with the wealth of experiences and influences to which he fell heir, after he learned to convert the barrier of the untrod waste into a highway for his sail-borne keel. It is therefore true, as many anthropologists maintain, that after the discovery of fire the next most im-

portant step in the progress of the human race was the invention of the boat. No other has had such far-reaching results. Since water covers three-fourths of the earth's surface and permits the land-masses to rise only as islands here and there, it presents to man for his nautical ventures three times the area that he commands for his terrestrial habitat. On every side, the break of the waves and the swell of the tides block his wanderings, unless he has learned to make the water carry him to his distant goal. Spacially, therefore, the problem and the task of navigation is the most widespread and persistent in the history of mankind. The numerous coaling-stations which England has scattered over the world are mute witnesses to this spacial supremacy of the water, to the length of ocean voyages, and the power of the ocean to divide and unite. But had the proportion of land and water been reversed, the world would have been poorer, deprived of all these possibilities of segregation and differentiation, of stimulus to exchange and far-reaching intercourse, and of ingenious inventions which the isolating ocean has caused. Without this ramifying barrier between the different branches of the human family, these would have resembled each other more closely, but at the cost of development. The mere multiplicity of races and sub-races has sharpened the struggle for existence and endowed the survivors with higher qualities. But it was navigation that released primitive man from the seclusion of his own island or continent, stimulated and facilitated the intercourse of peoples, and enabled the human race to establish itself in every habitable part of the world.

NOTES TO CHAPTER X

1. Census of the Philippine Islands, Vol. I, pp. 465, 563-567, 573. Washington, 1905.

2. Sir John Lubbock, Prehistoric Times, pp. 173-223. New York, 1872.

3. Ferdinand Keller, Lake Dwellings, Vol. I, pp. 2-7, 576. London, 1876. English Lake Dwellings, *Westminster Review*, pp. 337-347. 1887.

4. P. W. Joyce, A Social History of Ancient Ireland, Vol. II, pp. 65-66. London, 1903.

5. Herodotus, V. 16.

6. Alexander von Humboldt, Aspects of Nature, pp. 148-149. Translated by Mrs. Sabine, Philadelphia, 1849. E. F. im Thurn, Among the Indians of Guiana, p. 203. London, 1883.

7. Sir Thomas Holdich, India, p. 184. London, 1905.

8. Verney L. Cameron, Across Africa, pp. 332-334. London, 1885.

9. David and Charles Livingstone, Narrative of Expedition to the Zambezi, p. 414. New York, 1866.

10. Census of the Philippine Islands, Vol. I, pp. 464-466, 565. Washington, 1905.

11. Stanford's Australasia, Vol. II, pp. 256-257. London, 1894.

12. A. R. Wallace, The Malay Archipelago, pp. 368, 381. New York, 1869.

13. Ratzel, History of Mankind, Vol. I, pp. 262-263, 344. London, 1896-1898.

14. Richard Semon, In the Australian Bush, pp. 340-342, 347. London, 1899.

15. John L. Stoddard, Lectures, Vol. III, p. 311. Boston, 1903.

16. John Barrows, Travels in China, pp. 377-379. Philadelphia, 1805.

17. William M. Wood, Fankwei, pp. 169-174. New York, 1859.

18. Edmondo de Amicis, Holland and Its People, pp. 4-13. New York, 1890.

19. G. P. Marsh, The Earth as Modified by Human Action, chap. IV, pp. 330-352. New York, 1871.

20. J. Partsch, Central Europe, pp. 106-108. London, 1903.

21. Roscher, *National-Oekonomik des Ackerbaues*, p. 127, Note 1. Stuttgart, 1888.

22. Elisée Reclus, Europe, Vol. IV, pp. 222-223 New York, 1886. Miller and Skertchley, The Fenland, Past and Present, pp. 7-9. London, 1878.

23. *Ibid.*, pp. 145-147.

24. Sir Samuel W. Baker, The Albert Nyanza, Great Basin of the Nile, pp. 49-50. London and Philadelphia, 1866.

25. Diodorus Siculus, Book I, chap. III, p. 41. Translated by G. Booth. London, 1814.

26. David Livingstone, Missionary Travels in Africa, pp. 234-236, 239, 272. New York, 1858.

27. Felix Dubois, Timbuctoo, pp. 51-55, 145. New York, 1896.

28. Isabella B. Bishop, The Yangtze Valley and Beyond, Vol. I, pp. 8, 10, 97. London and New York, 1900.

29. Cyrus Thomas, Mound Explorations, pp. 626, 650-653. Twelfth Annual Report Bureau of Ethnology, Washington, 1894.

30. Strabo, Book V, chap. I, 4.

31. W. Deecke, Italy, pp. 88-89. London, 1904.

32. John Barrows, Travels in China, p. 349. Philadelphia, 1805.

33. Meredith Townsend, Asia and Europe, pp. 278-284. New York, 1904.

34. Isabella B. Bishop, The Yangtze Valley and Beyond, Vol. II, pp. 72-73, 76-81. New York and London, 1900. For the future of land

reclamation, see N. S. Shaler, Man and the Earth, chap. V. New York, 1906.

35. Strabo, Book X, chap. II, 19.

36. John W. Draper, Intellectual Development of Europe, Vol. I, pp. 84-86. New York, 1876.

37. Winwood Reade, The Martyrdom of Man, pp. 9-17. Eighth Edition, New York.

38. Irrigation, Thirteenth Report of the U. S. Geological Survey, Part III, pp. 133-135. Washington, 1895. J. W. Powell, Twenty-third Annual Report of the Bureau of Ethnology, pp. XII, XIII. Washington, 1904. Cosmos Mindeleff, Aboriginal Remains in the Verde Valley, Arizona, pp. 187, 192-194, 238-245. Thirteenth Annual Report of Bureau of Ethnology. Washington, 1896. V. Mindeleff, Pueblo Architecture, pp. 80, 216-217. Eighth Annual Report of Bureau of Ethnology. Washington, 1891. F. W. Hodge, Prehistoric Irrigation in Arizona, *American Anthropologist*, July, 1893.

39. McGee and Thomas, Prehistoric North America, pp. 105-106, 113, 118, 120-144, 478. Philadelphia, 1905.

40. Eleventh Census, Report on the Indians, pp. 49, 161, 415. Washington, 1894. D. G. Brinton, The American Race, pp. 116-117. Philadelphia, 1901.

41. *Ibid.*, pp. 161, 181, 182, 188, 191, 193, 198, 410, 441-445. M. C. Stevenson, The Zuni Indians, pp. 351-354. Twenty-third Annual Report of Bureau of Ethnology, Washington, 1904.

42. *Ibid.*, pp. 13-14. H. H. Bancroft, The Native Races, Vol. I, pp. 539-547. San Francisco, 1886.

43. Norway, Official Publication, pp. 99-100. Christiania, 1900.

44. Ernst Curtius, History of Greece, Vol. I, pp. 49-50. New York.

45. *Ibid.*, Vol. I, p. 440.

46. Dietrich Schaefer, *Die Hansestädte und König Waldemar von Dänemark*, pp. 255-257. Jena, 1879. Helen Zimmern, Story of the Hansa Towns, pp. 26-27. New York, 1895.

47. W. B. Weeden, Social and Economic History of New England, Vol. I, pp 17, 18, 90, 91, 128-135, 139. Boston, 1899.

48. *Ibid.*, Vol. I, p. 245.

49. H. D. Traill, Social England, Vol. III, pp. 363-364, 540. London and New York, 1895.

50. J. Partsch, Central Europe, p. 311. London, 1903.

51. Alexander P. Engelhardt, A Russian Province of the North, pp. 54-71. From the Russian. London, 1899.

CHAPTER XI

THE ANTHROPO-GEOGRAPHY OF RIVERS

Rivers as intermediaries between land and sea.

To a large view, rivers appear in two aspects. They are either part of the general water envelope of the earth, extensions of seas and estuaries back into the up-hill reaches of the land, feeders of the ocean, roots which it spreads out over the surface of the continents, not only to gather its nourishment from ultimate sources in spring and glacier, but also to bring down to the coast the land-born products of the interior to feed a sea-born commerce; or rivers are one of the land forms, merely water filling valley channels, serving to drain the fields and turn the mills of men. In the first aspect their historical importance has been both akin and linked to that of the ocean, despite the freshness and smaller volume of their waters and the unvarying direction of their currents. The ocean draws them and their trade to its vast basin by the force of gravity. It unites with its own the history of every log-stream in Laurentian or Himalayan forest, as it formerly linked the beaver-dammed brooks of wintry Canada with the current of trade following the Gulf Stream to Europe.

Where sea and river meet, Nature draws no sharp dividing line. Here the indeterminate boundary zone is conspicuous. The fresh water stream merges into brackish estuary, estuary into saltier inlet and inlet into briny ocean. Closely confined sea basins like the Black and Baltic, located in cool regions of slight evaporation and fed from a large catchment basin, approach in their reduced salinity the fresh water lakes and coastal lagoons in which rivers stretch out to rest on their way to the ocean. The muddy current of the Yangtze Kiang colors the Yellow Sea, and warns incoming Chinese junks of the proximity of land many hours before the low-lying shores can be discerned.[1] Columbus,

sailing along the Caribbean coast of South America off the Orinoco mouth, found the ocean waters brackish and surmised the presence of a large river and therefore a large continent on his left.[2]

The transitional form between stream and pelagic inlet found in every river mouth is emphasized where strong tidal currents carry the sea far into these channels of the land. The tides move up the St. Lawrence River 430 miles (700 kilometers) or half way between Montreal and Quebec, and up the Amazon 600 miles (1,000 kilometers). Owing to their resemblance to pelagic channels, the estuaries of the American rivers with their salty tide were repeatedly mistaken, in the period of discoveries, for the Northwest Passage to the Pacific. Newport in 1608 explored the broad sluggish course of the James River in his search for a western ocean. Henry Hudson ascended the Hudson River almost as far as Albany, before he discovered that this was no maritime pathway, like the Bosporus or Dardanelles, leading to an ulterior sea. The long tidal course of the St. Lawrence westward into the heart of the continent fed La Salle's dream of finding here a water route to the Pacific, and fixed his village of "La Chine" above the rapids at Montreal as a signpost pointing the way to the Indies and Cathay. In the same way a tidal river at the head of Cook's Inlet on the Alaskan coast was mistaken for a Northeast Passage, not by Captain Cook but by his fellow officers, on his Pacific voyage of 1776-1780; and it was followed for several days before its character as a river was established.[3]

Sea navigation merges into river navigation.

Rivers have always been the great intermediaries between land and sea, for in the ocean all find their common destination. Until the construction of giant steamers in recent years, sea navigation has always passed without break into river navigation. Sailing vessels are carried by the trade wind 600 miles up the Orinoco to San Fernando. Alexander's discovery of the Indus River led by almost inevitable sequence to the rediscovery of the Eastern sea route, which in turn ran from India through the Strait of Oman and the Persian Gulf up the navigable course of the Euphrates to the elbow of the river at Thapsacus. Enterprising sea

folk have always used rivers as natural continuations of the marine highway into the land. The Humber estuary and its radiating group of streams led the invading Angles in the sixth century into the heart of Britain.[4] The long navigable courses of the rivers of France exposed that whole country to the depredations of the piratical Northmen in the ninth and tenth centuries. Up every river they came, up the Scheldt into Flanders, the Seine to Paris and the Marne to Meaux; up the Loire to Orleans, the Garonne to Toulouse and the Rhone to Valence.[5] So the Atlantic rivers of North America formed the lines of European exploration and settlement. The St. Lawrence brought the French from the ocean into the Great Lakes basin, whose low, swampy watershed they readily crossed in their light canoes to the tributaries of the Mississippi; and scarcely had they reached the "Father of Waters" before they were planting the flag of France on the Gulf of Mexico at its mouth. The Tupi Indians of South America, a genuine water-race, moved from their original home on the Paraguay headstream of the La Plata down to its mouth, then expanded northward along the coast of Brazil in their small canoes to the estuary of the Amazon, thence up its southern tributary, the Tapajos, and in smaller numbers up the main stream to the foot of the Andes, where detached groups of the race are still found.[6] So the migrations of the Carib river tribes led them from their native seats in eastern Brazil down the Xingu to the Amazon, thence out to sea and along the northern coast of South America, thence inland once more, up the Orinoco to the foot of the Andes, into the lagoon of Maracaibo and up the Magdalena. Meanwhile their settlements at the mouth of the Orinoco threw off spores of pirate colonies to the adjacent islands and finally, in the time of Columbus, to Porto Rico and Haiti.[7] [See map page 101.]

Historical importance of seas and oceans influenced by their debouching streams.

So intimate is this connection between marine and inland waterways, that the historical and economic importance of seas and oceans is noticeably influenced by the size of their drainage basins and the navigability of their debouching rivers. This is especially true of enclosed seas. The only historical importance attached to the Caspian's inland basin

is that inherent in the Volga's mighty stream. The Mediterranean has always suffered from its paucity of long river highways to open for it a wide hinterland. This lack checked the spread of its cultural influences and finally helped to arrest its historical development. If we compare the record of the Adriatic and the Black seas, the first a sharply walled *cul de sac*, the second a center of long radiating streams, sending out the Danube to tap the back country of the Adriatic and the Dnieper to draw on that of the Baltic, we find that the smaller sea has had a limited range of influence, a concentrated brilliant history, precocious and short-lived as is that of all limited areas; that the Euxine has exercised more far-reaching influences, despite a slow and still unfinished development. The Black Sea rivers in ancient times opened their countries to such elements of Hellenic culture as might penetrate from the Greek trading colonies at their mouths, especially the Greek forms of Christianity. It was the Danube that in the fourth century carried Arianism, born of the philosophic niceties of Greek thought, to the barbarians of southern Germany, and made Unitarians of the Burgundians and Visigoths of southern Gaul.[8] The Dnieper carried the religion of the Greek Church to the Russian princes at Kief, Smolensk, and Moscow. Owing to the southward course of its great rivers, Russia has found the crux of her politics in the Black Sea, ever since the tenth century when the barbarians from Kiev first appeared before Constantinople. This sea has had for her a higher economic importance than the Baltic, despite the latter's location near the cultural center of western Europe.

Baltic and White Sea rivers.

In other seas, too, rivers play the same part of extending their tributary areas and therefore enhancing their historical significance. The disadvantages of the Baltic's smaller size and far-northern location, as compared with the Mediterranean, were largely compensated for by the series of big streams draining into it from the south, and bringing out from a vast hinterland the bulky necessaries of life. Hence the Hanseatic League of the Middle Ages, which had its origin among the southern coast towns of the Baltic from Lubeck to Riga, throve on the combined trade of sea

and river.[9] The mouths of the Scheldt, Rhine, Weser, Elbe and Thames long concentrated in themselves the economic, cultural and historical development of the North Sea basin. So the White Sea, despite its sub-polar location, is valuable to Russia for two reasons; it affords a politically open port, and it receives the Northern Dwina, which is navigable for river steamers from Archangel south to Vologda, a distance of six hundred miles, and carries the export trade of a large territory.[10] Similarly in recent years, Bering Sea has gained unwonted commercial activity because the Yukon River serves as a waterway 1,370 miles long to the Klondike gold fields.

Atlantic and Pacific rivers.

If we compare the Atlantic and Pacific oceans in respect to their rivers, we find that the narrow Atlantic has a drainage basin of over 19,000,000 square miles as opposed to the 8,660,000 square miles of drainage area commanded by the vastly larger Pacific. The Pacific is for the most part rimmed by mountains, discharging into the ocean only mad torrents or rapid-broken streams. The Atlantic, bordered by gently sloping plains of wide extent, receives rivers that for the most part pursue a long and leisurely course to the sea. Therefore, the commercial and cultural influences of the Atlantic extend from the Rockies and Andes almost to the heart of Russia, and by the Nile highway they even invade the seclusion of Africa. Through the long reach of its rivers, therefore, the Atlantic commands a land area twice as great as that of the Pacific; and by reason of this fundamental geographic advantage, it will retain the historical preëminence that it so early secured. The development of the World Ocean will mean the exploitation of the Pacific trade from the basis of the Atlantic, the domination of the larger ocean by the historic peoples of the smaller, because these peoples have wider and more accessible lands as the base of their maritime operations.

Lack of coast articulations supplied by rivers.

The geographic influence of abundant rivers navigable from the sea is closely akin to that of highly articulated coasts. The effect of the Hardanger or Sogne Fiord, admitting ocean steamers a hundred miles into the interior of Norway, is similar to that of the Elbe and Weser estuaries,

which admit the largest vessels sixty miles upstream to Hamburg and Bremen. Since river inlets can, to a certain extent, supply the place of marine inlets, from the standpoint of anthropo-geographic theory and of human practice, a land dissected by navigable rivers can be grouped with one dissected by arms of the sea. South America and Africa are alike in the unbroken contour of their coasts, but strongly contrasted in the character of their rivers. Hence the two continents present the extremes of accessibility and inaccessibility. South America, most richly endowed of all the continents with navigable streams, receiving ocean vessels three thousand miles up the Amazon as far as Tabatinga in Peru, and smaller steamers up the Orinoco to the spurs of the Andes, was known in its main features to explorers fifty years after its discovery. Africa, historically the oldest of continents, but cursed with a mesa form which converts nearly every river into a plunging torrent on its approach to the sea, kept its vast interior till the last century wrapped in utmost gloom. China, amply supplied with smaller littoral indentations but characterized by a paucity of larger inlets, finds compensation in the long navigable course of the Yangtze Kiang. This river extends the landward reach of the Yellow Sea 630 miles inland to Hanchow, where ocean-going vessels take on cargoes of tea and silk for Europe and America,[11] and pay for them in Mexican dollars, the coin of the coast. Hence it is lined with free ports all the way from Shanghai at its mouth to Ichang, a thousand miles up its course.[12]

River highways as basis of commercial pre-eminence.

Navigable rivers opening passages directly from the sea are obviously nature-made gates and paths into wholly new countries; but the accessibility with which they endow a land becomes later a permanent factor in its cultural and economic development, a factor that remains constantly though less conspicuously operative when railroads have done their utmost to supplant water transportation. The importance of inland waterways for local and foreign trade and intercourse has everywhere been recognized. The peoples who have long maintained preëminence among the commercial and maritime nations of the world have owed this in no

small part to the command of these natural highways, which have served to give the broad land basis necessary for permanent commercial ascendency. This has been the history of England, Holland, France and the recent record of Germany. The medieval League of the Rhine Cities flourished by reason of the Rhone-Rhine highway across western Europe. The Hanseatic League, from Bruges all the way east to Russian Novgorod, owed their brilliant commercial career, not only to the favorable maritime field in the enclosed sea basins in front of them, but also to the series of long navigable rivers behind them from the Scheldt to the Neva and Volchov. Wherefore we find the League, originally confined to coast towns, drawing into the federation numerous cities located far up these rivers, such as Ghent, Cologne, Magdeburg, Breslau, Cracow, Pskof and Novgorod.[13]

Importance of rivers in large countries.

In countries of large area, where commerce and intercourse must cover great distances, these natural and therefore cheap highways assume paramount importance, especially in the forest and agricultural stages of development, when the products of the land are bulky in proportion to their value. Small countries with deeply indented coasts, like Greece, Norway, Scotland, New England, Chile, and Japan, can forego the advantage of big river systems; but in Russia, Siberia, China, India, Canada, the United States, Venezuela, Brazil and Argentine, the history of the country, economic and political, is indissolubly connected with that of its great rivers. The storm center of the French and English wars in America was located on the upper Hudson, because this stream enabled the English colonies to tap the fur trade of the Great Lakes, and because it commanded the Mohawk Valley, the easiest and most obvious path for expansion into the interior of the continent. The Spanish, otherwise confining their activities in South America to the Caribbean district and the civilized regions of the Andean highlands, established settlements at the mouth of the La Plata River, because this stream afforded an approach from the Atlantic side toward the Potosi mines on the Bolivian Plateau. The Yangtze Kiang, that great waterway leading from the sea

across the breadth of China and the one valuable river adjunct of maritime trade in the whole Orient, was early appropriated by the discerning English as the British "sphere of influence."

Rivers as highways of expansion.

No other equally large area of the earth is so generously equipped by nature for the production and distribution of the articles of commerce as southern Canada and that part of the United States lying east of the Rocky Mountains. The simple build of the North American continent, consisting of a broad central trough between distant mountain ranges, and characterized by gentle slopes to the Atlantic Ocean and the Gulf of Mexico, has generated great and small rivers with easy-going currents, that everywhere opened up the land to explorer, trader and settler. The rate of expansion from the "Europe-fronting shore" of the continent was everywhere in direct proportion to the length of the rivers first appropriated by the colonists. North of Chesapeake Bay the lure to landward advance was the fur trade. The Atlantic rivers of the coast pre-empted by the English were cut short by the Appalachian wall. They opened up only restricted fur fields which were soon exhausted, so that the migrant trapper was here early converted into the agricultural settler, his shifting camp fire into the hearthstone of the farmhouse. Expansion was slow but solid. The relatively small area rendered accessible by their streams became compactly filled by the swelling tide of immigrants and the rapid natural increase of population. In sharp contrast to this development, the long waterway of the St. Lawrence and the Great Lakes leading to the still vaster river system of the Mississippi betrayed the fur-trading French into excessive expansion, and enabled them to appropriate but not to hold a vast extent of territory. A hundred years after the arrival of Champlain at Montreal, they were planting their fur stations on Lake Superior and the Mississippi, 1,400 miles (2,300 kilometers) back from the coast, at a time when the English settlements had advanced little beyond tide-water. And when after 1770 the westward movement swept the backwoodsmen of the English colonies over the Appalachian barrier to the Ohio, Cumberland and

Tennessee, these long westward flowing streams carried them rapidly on to the Mississippi, communicated the mobility and restlessness of their own currents to the eager pioneer, and their capacity to master great distances; so that in forty short years, by 1810, settlements were creeping up the western tributaries of the Mississippi. The abundant water communication in the Mississippi Valley, which even for present large river craft contains 15,410 miles of navigable streams and which had therefore a far greater mileage in the day of canoe and flatboat, afforded outlet for bulky, backwoods produce to the sea at New Orleans. When the English acquired Canada in 1763, they straightway fell under the sway of its harsh climate and long river systems, taking up the life of the fur trader; they followed the now scarcer pelts from the streams of Superior westward by Lake Winnipeg and along the path of the Saskatchewan River straight to the foot of the Rockies.

Siberian rivers and Russian expansion.

Rivers have played the same part in expediting Russian expansion across the wide extent of Siberia. Here again a severe climate necessitated reliance on furs, the chief natural product of the country, as the basis of trade. These, as the outcome of savage economy, were gathered in from wide areas which only rivers could open up. Therefore, where the Siberian streams flatten out their upper courses east and west against the northern face of the Asiatic plateau, with low watersheds between, the Russian explorer and sable hunter struck their eastward water trail toward the Pacific. The advance, which under Yermak crossed the Ural Mountains in 1579, reached the Yenisei River in 1610 and planted there the town of Turuchansk as a sort of milestone, almost on the Arctic Circle opposite the mouth of the Lower Tunguska, a long eastern tributary. Up this they passed to the Lena in 1627, thence to Bering Sea by the Kolima and Anadyr rivers, because these arctic fields yielded sable, beaver and fox skins in greatest quantity.[14] The Lena especially, from its source down to its eastern elbow at Yakutsk, that great rendezvous of Siberian fur traders, was a highway for trapper and Cossack tribute-gatherer.[15] From the sources of the Yenisei in Lake Baikal to the navigable

course of the Amur was a short step, taken in 1658, though the control of the river, which was claimed by China, was not secured till two hundred years later.[16] [See map page 103.]

As the only highways in new countries, rivers constitute lines of least resistance for colonial peoples encroaching upon the territory of inferior races. They are therefore the geographic basis of those streamers of settlement which we found making a fringe of civilization across the boundary zone of savagery or barbarism on the typical colonial frontier. Ethnic islands of the expanding people cluster along them like iron filings on a magnetized wire. Therefore in all countries where navigable rivers have fixed the lines of expansion, as in the United States, the northern part of the Russian Empire, and the eastern or colonial border of Germany and Austria, there is a strong anthropo-geographic resemblance in the frontiers of successive decades or centuries. But in arid or semi-arid regions like South Africa, the western plains of North America, the steppes of Russian and Chinese Turkestan, the river highway *motif* in expansion is lost in a variety of other geographic and geologic factors, though the water of the streams still attracts trail and settlement.

Determinants of routes in arid or semi-arid lands.

A river like the Nile, lower Volga, Irtysh or Indus, rising in highlands of abundant rainfall but traversing an arid or desert land, acquires added importance because it furnishes the sole means of water travel and of irrigation. The Nile has for ages constituted the main line of intercourse between the Mediterranean and Equatorial Africa. The Tigris, Euphrates, Indus, and the Niger where it makes its great northern bend into the Sahara near Timbuctoo,[17] attest the value to local fertility and commerce inherent in these rivers of the deserts and steppes. Such rivers are always oasis-makers, whether on their way to the sea they periodically cover a narrow flood-plain like that of the Nile, or one ninety miles wide, like that of the Niger's inland delta above Timbuctoo;[18] or whether they emerge into a silent sea of sand, like the Murghab of Russian Turkestan, which spreads itself out to water the gardens of Merv.

Even where such rivers have a volume too scanty to float a raft, they yet point the highway, because they alone supply water for man and beast across the desert tract. The Oxus and Sir Daria have from time immemorial determined the great trade routes through Turkestan to Central Asia. The Platte, Arkansas, Cimarron and Canadian rivers fixed the course of our early western trails across the arid plains to the foot of the Rockies; and beyond this barrier the California Trail followed the long-drawn oasis formed by the Humboldt River across the Nevada Desert, the Gila River guided the first American fur-trapping explorers across the burning deserts of Arizona to the Pacific, and the succession of water-holes in the dry bed of the Mohave River gave direction to the Spanish Trail across the Mohave Desert towards Los Angeles. In the same way, Livingstone's route from the Orange River in South Africa to Lake Ngami, under the direction of native guides, ran along the margin of the Kalahari Desert up the dry bed of the Mokoko River, which still retained an irregular succession of permanent wells.[19]

Wadi routes in arid lands.

In the trade-wind regions of the world, which are characterized by seasons of intense drought, we find rivers carrying a scant and variable amount of water but an abundance of gravel and sand; they are known in different localities as wadis, fiumares and arroyos. Their beds, dry for long periods of the year, become natural roads, paved with the gravel which the stream regularly deposits in the wet season. Local travel in Sicily, Italy [20] and other Mediterranean countries uses such natural roads extensively. Trade routes across the plateau of Judea and Samaria follow the wadis, because these give the best gradient and the best footing for the ascent.[21] Wadis also determine the line of caravan routes across the highlands of the Sahara. In the desert of Southwest Africa, the Khiuseb is the first river north of the Orange to reach the Atlantic through the barrier dunes of the coast. Hence it has drawn to its valley the trade routes from a wide circle of inland points from Ottawe to Windhoek and Rehobeth, and given added importance to the British coast of Walfish Bay, into which it de-

bouches.[22] But just to the north, the broad dry bed of the Swakop offered a natural wagon route into the interior, and has been utilized for the railroad of German Southwest Africa.

Increasing historical importance from source to mouth.

The historical importance of a river increases from its source toward its mouth. Its head springs, gushing from the ground, and the ramifying brooks of its highland course yield a widely distributed water supply and thereby exercise a strong influence in locating the dwellings of men; but they play no part in the great movements and larger activities of peoples. Only when minor affluents unite to form the main stream, enlarge it in its lower course by an increasing tribute of water, and extend constantly its tributary area, does a river assume real historical importance. It reaches its fullest significance at its mouth, where it joins the world's highway of the ocean. Here are combined the best geographical advantages—participation in the cosmopolitan civilization characteristic of coastal regions, opportunity for inland and maritime commerce, and a fertile alluvial soil yielding support for dense populations. The predominant importance of the debouchment stretch of a river is indicated by the presence of such cities as London, Rotterdam, Hamburg, Bremen, Bordeaux, Odessa, Alexandria, Calcutta, Rangoon, Bangkok, Hongkong, Canton, Nanking and Shanghai, Montreal and Quebec, New York, Philadelphia, New Orleans, Buenos Ayres and Montevideo. This debouchment stretch gains in practical value and hence in permanent historical importance if it is swept by a scouring tide, which enables the junction of inland and maritime routes to penetrate into the land. Even Strabo recognized this value of tidal reaches.[23] Hence in tideless basins like the Baltic and Caribbean, the great river ports have to advance coastward to meet the sea; and the lower course of even mighty streams like the Volga and Nile achieve a restricted importance.[24]

The control of a river mouth becomes a desideratum or necessity to the upstream people. Otherwise they may be bottled up. Though history shows us countless instances of upstream expansion, nevertheless owing to the ease of down-

stream navigation and this increasing historical importance from source to mouth, the direction of a river's flow has often determined the course of commerce and of political expansion.

Location at hydrographic centers.

The possibility of radial expansion, which we have found to be the chief advantage of a central location, is greatly enhanced if that central location coincides with a hydrographic center of low relief. The tenth century nucleus of the Russian Empire was found about the low nodal watershed formed by the Valdai Hills, whence radiated the rivers later embodied in the Muscovite domain. Here in Novgorod at the head of the Volchov-Ladoga-Neva system, Pskof on the Velikaya, Tver at the head of the navigable Volga, Moscow on the Oka, Smolensk on the Dnieper, and Vitebsk on the Duna, were gathered the Russians destined to displace the primitive Finnish population and appropriate the wide plains of eastern Europe. Everywhere their conquests, colonization, and commercial relations have followed the downstream course of their rivers. The Dnieper carried the Rus of Smolensk and Kief to the Euxine, into contact with the Byzantine world, and brought thence religion, art, and architecture for the untutored empire of the north. The influence of the Volga has been irresistible. Down its current Novgorod traders in the twelfth century sought the commerce of the Caspian and the Orient; and later the Muscovite princes pushed their conquest of the Tartar hordes from Asia. The Northern Dwina, Onega, Mesen and Petchora have carried long narrow bands of Slav settlement northward to the Arctic Ocean. [See map page 225.] Medieval Russian trade from Hanseatic Pskof and Novgorod, and later Russian dominion followed the Narva and Neva to the Baltic. "The Dnieper made Russia Byzantine, the Volga made it Asiatic. It was for the Neva to make it European." [25]

In the same way, when the early French explorers and traders of Canada reached the hydrographic center of the continent about Lakes Superior and Michigan, they quickly crossed the low rim of these basins southward to the Mississippi, and northward to the Rainy Lake and Winnipeg

system draining to Hudson Bay.[26] While it took them from 1608 to 1659 and 1662 to penetrate upstream from Quebec to this central watershed, only nine years elapsed from the time (1673) Marquette reached the westward flowing Wisconsin River to 1682, when La Salle reached the mouth of the Mississippi.

Effect of current upon trade and expansion.

The effect of mere current upon the course of trade and political expansion was conspicuous in the early history of the Mississippi Valley, before steam navigation began to modify the geographic influence of a river's flow. The wide forest-grown barrier of the Appalachian Mountains placed the western pioneers under the geographic control of the western waters. The bulkiness of their field and forest products, fitted only for water transportation, and the immense mass of downstream commerce called loudly for a maritime outlet and the acquisition from Spain of some port at the Mississippi mouth. For twenty years the politics of this transmontane country centered about the "Island of New Orleans," and in 1803 saw its dream realized by the Louisiana Purchase.

For the western trader, the Mississippi and Ohio were preeminently downstream paths. Gravity did the work. Only small boats, laden with fine commodities of small bulk and large value, occasionally made the forty day upstream voyage from New Orleans to Louisville. Flat boats and barges that were constructed at Pittsburg for the river traffic were regularly broken up for lumber at downstream points like Louisville and New Orleans; for the traders returned overland by the old Chickasaw Trail to the Cumberland and Ohio River settlements, carrying their profits in the form of gold. The same thing happens today, as it also happened two thousand years ago, on the Tigris and Euphrates. The highlander of Armenia or northern Mesopotamia floats down the current in his skin boat or on his brushwood raft, to sell his goods and the wood forming the frame-work of his primitive craft in timberless Bagdad and Busra, as formerly in treeless Babylon. He dries out his skins, loads them on his shoulders or on a mule brought down for the purpose, and returns on foot to his highland

village.[27] The same preponderance of downstream traffic appears to-day in eastern Siberia. Pedlers on the Amur start in the spring from Stretensk, 2025 miles up the river, with their wares in barges, and drift down with the current, selling at the villages *en route*, to the river's mouth at Nikolaievsk. Here they dispose of their remaining stock and also of their barges, the lumber of which is utilized for sidewalks, and they themselves return upstream by steamer. The grain barges of western Siberia, like the coal barges of the Mississippi, even within recent decades, are similarly disposed of at the journey's end.[28] The tonnage of downstream traffic on the Ohio and Mississippi to-day greatly exceeds that upstream. The fleet of 56 coal boats, carrying about 70,000 tons, which the great towboat Sprague takes in a single trip from Louisville down to New Orleans, all return empty. Of the 15,226,805 net tons of freight shipped in 1906 on the Ohio system, 13,980,368 tons of coal, stone, sand and lumber were carried in unrigged craft, fitted chiefly for downstream traffic.[29]

Importance of mouth to upstream people.

Owing to the strong pull exerted by a river's mouth upon all its basin, current, commerce and people alike tend to reach the ocean. For a nation holding the terrestrial course of a stream, the political fate of its tidal course or mouth must always be a matter of great concern. To the early westerner of the United States, before the acquisition of the Louisiana country, it was of vital importance whether belligerent France or more amenable Spain or the Republic itself should own the mouth of the Mississippi. Germany, which holds 240 miles (400 kilometers) of the navigable Danube,[30] can never be indifferent to the political ownership of its mouth, or to the fact that a great power like Russia has edged forward, by the acquisition of Bessarabia in 1878, to the northern or Kilia debouchment channel.[31] Such interest shows itself in sustained efforts either to gain political control of the mouth, or to secure the neutrality of the stream by having it declared an international waterway, and thus partially to deprive the state holding its mouth of the advantages of its transit location.

The only satisfactory solution is undivided political owner-

ship. After France pushed eastward to the Rhine in 1648, she warred for three centuries to acquire its mouth. Napoleon laid claim to Belgium and Holland on the ground that their soil had been built up by the alluvium of French rivers. Germany's conquest of Schleswig-Holstein in 1864 was significant chiefly because it dislodged Denmark from the right bank of the lower Elbe, and secured undivided control of this important estuary. The Rhine, which traverses the Empire from north to south and constitutes its greatest single trade route, gives to Germany a more vital interest in Holland than ever France had. Her most important iron and coal mines and manufacturing industries are located on this waterway or its tributaries, the Ruhr, Mosel, Saar and Main. Hence the Rhine is the great artery of German trade and outlet for her enormous exports, which chiefly reach the sea through the ports of Belgium and Holland. These two countries therefore fatten on German commerce and reduce German profits. Hence the Empire, by the construction of the Emden-Dortmund canal, aims to divert its trade from Rotterdam and Antwerp to a German port, and possibly thereby put the screw on Holland to draw her into some kind of a commercial union with Germany.[32] Heinrich von Treitschke, in his "*Politik*," deplores the fact that the most valuable part of the great German river has fallen into alien hands, and he declares it to be an imperative task of German policy to recover the mouth of that stream, "either by a commercial or political union." "We need the entrance of Holland into our customs union as we need our daily bread." [33]

Prevention of monopoly of river mouth.

When the middle and upper course of a river system are shared by several nations, their common interest demands that the control of the mouth be divided, as in the case of the La Plata between Argentine and Uruguay; or held by a small state, like Holland, too weak to force the monopoly of the tidal course. The Treaty of Paris in 1856 extended the territory of Moldavia at the cost of Russia, to keep the Russian frontier away from the Danube.[34] Her very presence was ominous. The temptation to giant powers to gobble up these exquisite morsels of territory is irresistible.

Hence the advisability of neutralizing small states holding such locations, as in the case of Roumania; and making their rivers international waterways, as in the case of the Orinoco,[35] Scheldt, Waal, Rhine and Danube.[36] The Yangtze Kiang mouth, where already the treaty ports cluster thick, will probably be the first part of China to be declared neutral ground, and as such to be placed under the protection of the combined commercial powers,[37] as is even now foreshadowed by the international Conservancy Board of 1910.[38] The United States, by her treaty with Mexico in 1848, secured the right of free navigation on the lower or Mexican course of the Colorado River and the Gulf of California. The Franco-British convention, which in 1898 confirmed the western Sudan to France, also conceded the principle of making the Niger, the sole outlet of this vast and isolated territory, an international waterway, and created two French *enclaves* in British Nigeria to serve as river ports.[39]

Motive for canals in lower course

The mouth of a large river system is the converging point of many lines of inland and maritime navigation. The interests of commerce, especially in its earlier periods of development, demand that the contact here of river and sea be extensive as possible. Nature suggests the way to fulfill this requirement. The sluggish lowland current of a river, on approaching sea level, throws out distributaries that reach the coast at various points and form a network of channels, which can be deepened and rendered permanent by canalization. In such regions the opportunity for the improvement and extension of waterways has been utilized from the earliest times. The ancient Egyptians, Chaldeans, East Indians, and the Gauls of the lower Po for thousands of years canaled the waters of their deltas and coastal lowlands for the combined purpose of irrigation, drainage, and navigation. The great canal system of China, constructed in the seventh century primarily to facilitate inland intercourse between the northern and central sections of the Empire, extends from the sea at Hangchow 700 miles northward through the coastal alluvium of the Yangtze Kiang, Hoang-ho and Pie-ho to Tientsin, the port of Peking. Only the

canal system of the center, important both for the irrigation of the fertile but porous loess and for the transportation of crops, is still in repair. Here the meshes of the canal network are little more than half a mile wide; farmers dig canals to their barns and bring in their produce in barges instead of hay wagons.[40] Holland, where the ancient Romans constructed channels in the Rhine delta and where the debouchment courses of the Rhine, Meuse and Scheldt present a labyrinth of waterways, has to-day 1903 miles (3069 kilometers) of canals, which together with the navigable rivers, have been important geographic factors in the historical preëminence of Dutch foreign commerce. So on the lower Mississippi, in the greatest alluvial area of the United States, the government has expended large sums for the improvement of the passes and bayous of the river. The Barataria, Atchafalaya, Terrebonne, Black, Teche and Lafourche bayous have been rendered navigable, and New Orleans has been given canal outlets to the sea through Lakes Salvador, Pontchartrain and Borgne.

Watershed canals.

As the dividing channels of the lower course point to the feasibility of amplifying the connection with the ocean highway, so the spreading branches of a river's source, which approach other head waters on a low divide, suggest the extension of inland navigation by the union of two such drainage systems through canals. Where the rivers of a country radiate from a relatively low central watershed, as from the Central Plateau of France and the Valdai Hills of Russia, nature offers conditions for extensive linking of inland waterways. Hence we find a continuous passway through Russia from the Caspian Sea to the Baltic by the canal uniting the Volga and Neva rivers; another from the Black Sea up the Dnieper, which by canals finds three different outlets to the Baltic through the Vistula, Niemen and Duna.[41] The Northern Dwina, linked, by canals, with the Neva through Lakes Onega and Ladoga, unites the White Sea with the Baltic.[42] Sully, the great minister of Henry IV. of France, saw that the relief of the country would permit the linking of the Loire, Seine, Meuse, Saône and Rhine, and the Mediterranean with the Garonne. All his plans

were carried out by his successors, but he himself, at the end of the sixteenth century, began the construction of the Briare Canal between the Loire near Orleans and the Seine at Fontainebleau.[43] Similarly in the eastern half of the United States, the long, low watershed separating the drainage basin of the St. Lawrence and Great Lakes from that of the Mississippi and the Hudson made feasible the succession of canals completing the "Great Belt" of inland navigation from St. Lawrence and New York bays to the Gulf. Albert Gallatin's famous report of 1808 [44] pointed out the adaptation of the three low divides to canal communication; but long before this, every line of possible canoe travel by river and portage over swamp or lake-dotted watershed had been used by savages, white explorers and French voyageurs, from Lake Champlain to Lake Winnebago, so that the canal engineer had only to select from the numerous portage paths already beaten out by the moccasined feet of Indian or fur-trader.

Rivers and railroads.

The cheapness and ease of river travel have tended to check or delay the construction of highroads and railways, where facilities for inland navigation have been abundant, and later to regulate railway freight charges. Conversely, riverless lands have everywhere experienced an exaggerated and precocious railroad development, and have suffered from its monopoly of transportation. Even canals have in most lands had a far earlier date than paved highroads. This has been true of Spain, France, Holland, and England.[45] In the Hoang-ho Valley of northern China where waterways are restricted, owing to the rapid current and shallowness of this river, highroads are comparatively common; but they are very rare in central and southern China where navigable rivers and canals abound.[46] New England, owing to its lack of inland navigation, was the first part of the United States to develop a complete system of turnpikes and later of railroads. On the other hand, the great river valleys of America have generally slighted the highroad phase of communication, and slowly passed to that of railroads. The abundance of natural waterways in Russia—51,800 miles including canals—has contributed to the retardation of railroad

construction.[47] The same thing is true in the Netherlands, where 4875 miles (7863 kilometers) of navigable waterways[48] in an area of only 12,870 square miles (33,000 square kilometers) have kept the railroads down to a paltry 1818 miles (2931 kilometers); but smaller Belgium, commanding only 1375 miles (3314 kilometers) of waterway and stimulated further by a remarkable industrial and commercial development, has constructed 4228 miles (6819 kilometers) of railroad.

Relation of rivers to railroads in recent colonial lands.

If we compare the countries of Central and South America, where railroads are still mere adjuncts of river and coastwise routes, a stage of development prevalent in the United States till 1858, we find an unmistakable relation between navigable waterways and railroad mileage. The countries with ample or considerable river communication, like Brazil, Venezuela, Colombia and Paraguay, are all relatively slow in laying railroads as compared with Mexico and Argentine, even when allowance is made for differences of zonal location, economic development, and degree of European elements in their respective populations. Mexico and Argentine, having each an area only about one-fourth that of Brazil but a railroad mileage nearly one-fourth greater, have been pushed to this development primarily by a common lack of inland navigation. Similarly South Africa, stricken with poverty of water communication south of the Zambesi, has constructed 7500 miles of railroads,[49] in spite of the youth of the country and the sparsity of its white population. Similar geographic conditions have forced the mileage of Australian railways up to twice that of South Africa, in a country which is still in the pastoral and agricultural stage of development, and whose most densely populated province Victoria has only fourteen inhabitants to the square mile. In the almost unpeopled wastes of Trans-Caspia, where two decades ago the camel was the only carrier, the Russian railroad has worked a commercial revolution by stimulating production and affording an outlet for the irrigated districts of the encircling mountains.[50] In our own Trans-Missouri country, where the scanty volume of the streams eliminated all but the Missouri itself as a dependable

waterway, even for the canoe travel of the early western trappers, railroads have developed unchecked by the competition of river transportation.[51] With no rival nearer than the Straits of Magellan and the Isthmus of Panama for transportation between the Mississippi and the Pacific coast, they have fixed their own charges on a monopoly basis, and have fought the construction of the Isthmian Canal.

Unity of a river system.

A river system is a system of communication. It therefore makes a bond of union between the people living among its remoter sources and those settled at its mouth. Every such river system forms geographically an unbroken whole. Only where a wild, torrent-filled gorge, like the Brahmaputra's path through the Himalayas, interrupts communication between the upper and lower course, is human life in the two sections divorced. But such cases are rare. Even the River Jhelam, which springs with mad bounds from the lofty Vale of Kashmir through the outer range of the Himalayas down to its junction with the Indus, carries quantities of small logs to be used as railway sleepers; and though it shatters a large per cent. of them, it makes a link between the lumber men of the Kashmir forests and British railroad engineers in the treeless plains of the Indus.[52]

The effect of common water supply in arid lands.

In arid lands, where the scant and variable streams are useless for navigation, but invaluable for irrigation, a rival interest in the limited water supply leads almost inevitably to conflict, and often to the political union of the peoples holding the upper and lower courses, in order to secure adjustment of their respective claims. The ancient Salassi of the upper Doria Baltea Valley in the Alps drew off all the water of the stream for washing gold, and thus deprived the agricultural people lower down the valley of the water necessary for irrigation. The result was frequent wars between the two tribes.[53] The offensive is taken by the downstream people, whose fields and gardens suffer from every extension of tillage or increase of population in the settlements above them. Occasionally a formal agreement is a temporary expedient. The River Firenze and other streams watering southern Trans-Caspia have their sources in the mountains of northern Persia; hence the Russians, in the boundary convention

with Persia of 1881, stipulated that no new settlement be established along these streams within Persian territory, no extension of land under cultivation beyond the present amount, and no eduction of the water beyond that necessary to irrigate the existing fields.[54] Russia's designs upon Afghanistan aim not only at access to India, but also at the control of the upper Murghab River, on whose water depends the prosperity of the Pendjeh and Merv oases.[55] In such regions the only logical course is the extension of the political frontier to the watershed, a principle which Russia is applying in western Asia, and which California applied in drawing her eastern boundary to include even Goose Lake.

Union of opposite river banks.

Rivers unite. Ancient Rome grew up on both banks of the Tiber, and extended her commercial and political supremacy up and down stream. Both sides of the Rhine were originally occupied by the Gallic tribes, whose villages were in some instances bisected by the river. Cæsar found the Menapii, a Belgian people on the lower Rhine, with their fields, farmhouses and villages on both banks.[56] Then the westward advance of the Teutonic tribes gradually transformed the Rhine into a German river, from the island of Batavia at its mouth up to the great elbow at the foot of the Jura Mountains.[57] To the American Indians even the widest rivers were no barriers. Christopher Gist, exploring the Ohio in 1751, found a Shawnee village situated on both sides of the river below the mouth of the Scioto, with about a hundred houses on the north bank and forty on the south.[58] The small and unique nation of the Mandan Indians were found by Lewis and Clark near the northern bend of the Missouri in 1804, in two groups of villages on opposite sides of the river. They had previously in 1772 occupied nine villages lower down the stream, two on the east bank and seven on the west.[59] The Connecticut River settlers of early colonial days laid out all their towns straight across the valley, utilizing the alluvial meadows on both banks for tillage, the terraces for residence sites, and the common river for intercourse.[60]

Tendency toward ethnic and cultural unity in a river valley.

Every river tends to become a common artery feeding all the life of its basin, and gradually obliterating ethnic and

cultural differences among the peoples of its valley. The Nile, with its narrow hem of flood-plain on either bank and barrier sands beyond, has so linked race and history in Egypt and Nubia, that the two countries cannot be separated. A common highway from mountains to sea, a common frontier of trackless desert have developed here a blended similarity of race, language and culture from the delta to Kordofan. The Hamitic race seems to have originated in the south and migrated northward down the Nile towards the delta. Later the whole valley, north and south, received the same Semitic or Arab immigration, which spread from Cairo to the old Sudanese capital of Sennar, while a strain of negro blood has filtered in from the equatorial black belt and followed the current down to the sea.[61] The culture of the valley originated in Lower Egypt, and, with that easy transmissibility which characterizes ideas, it moved upstream into Ethiopia, which never evolved a culture of its own. Just as noticeable is the political interplay. The rule of the Pharaohs extended far up the Nile, at times to the Third Cataract at 20° N. L.; and at one period Ethiopian kings extended their sway over Egypt. At another, a large body of mutinous Egyptian soldiers abandoned their country and their wives, and emigrated along the one line of slight resistance open to them into Ethiopia, to found there a new state and new families by marriage with native women, thus contributing to the amalgamation of races in the valley.

Identity of country with river valley.

The most pronounced types of the identity of a country with a river valley are found where strongly marked geographical boundaries, like deserts and mountains, emphasize the inner unity of the basins by accentuating their isolation from without. This is especially the case in high mountain regions; here canton or commune or county coincides with the river valley. Population hugs the margins of the streams where alone is soil fit for cultivation, and fairly level land suitable for dwellings. Above are the unoccupied heights, at once barrier and boundary. In the Alps, Salzburg is approximately identical with the valley of the Salzach, Uri with that of the Reuss, the Valais with

the upper Rhone, the Engadine with the upper Inn, Glarus with the Linth, Graubunden or Grisons with the upper Rhine, Valtellina with the Adda. So in the great upheaved area of the Himalayas, the state of Kashmir was originally the valley of the upper Jhelam River, while Assam, in its correct delimitation, is the valley of the Brahmaputra between the Himalayan gorge and the swamps of Bengal.[62]

In mountain regions which are also arid, the identity of a district with a stream basin becomes yet more pronounced, because here population must gather about the common water supply, must organize to secure its fair distribution, and cooperate in the construction of irrigation channels to make the distribution as economical and effective as possible. Thus in Chinese Turkestan, the districts of Yarkand, Kashgar, Aksu and Kut-sha are identical with as many mountain tributaries of the Tarim, whose basin in turn comprises almost the whole of Chinese Turkestan.

Enclosed river valleys.

In all such desert and mountain-rimmed valleys, the central stream attracts to its narrow hem of alluvial soil the majority of the population, determines the course of the main highroad, and is itself often the only route through the encompassing barriers. Hence the importance attached to the river by the inhabitants, an importance reflected in the fact that the river often gives its name to the whole district. To the most ancient Greeks *Aigiptos* meant the river, whose name was later transferred to the whole land; for the narrow arable strip which constituted Egypt was "the gift of the Nile." The Aryans, descending into India through the mountains on its northwest border, gave the name of *Sindhu*, "the flood" or "the ocean," to the first great river they met. In the mouth of Persians and Greeks the name was corrupted into Indus, and then applied to the whole country; but it still survives in its original form in the local designation of the Sind province, which comprises the valley of the Indus below the confluence of the five rivers, which again formed and named the original Punjab. Significantly enough the western political boundary of the Sind extends into the barren foothills of Baluchistan only so far as the affluents of the Indus render the land arable by irrigation; for the

Indus performs for the great province of the Sind, by annual inundation and perennial irrigation, the same service that the Nile does for Egypt.

The segregation of such districts, and the concentration of their interests and activities along the central streams have tended to develop in the population an intense but contracted national consciousness, and to lend them a distinctive history. Their rivers become interwoven with their mythology and religion, are gods to be worshipped or appeased, become goals of pilgrimages, or acquire a peculiar sanctity. The Nile, Ganges, Jamna, Jordan, Tiber and Po are such sacred streams, while the Rhine figures in German mythology.

Rivers as boundaries of races and peoples.

From the uniting power of rivers it follows that they are poor boundaries. Only mountains and seas divide sharply enough to form scientific frontiers. Rivers may serve as political lines of demarcation and therefore fix political frontiers; but they can never take the place of natural boundaries. A migrating or expanding people tend always to occupy both slopes of a river valley. They run their boundary of race or language across the axis of their river basin, only under exceptional circumstances along the stream itself. The English-French boundary in the St. Lawrence Valley crosses the river in a broad transitional zone of mingled people and speech in and above the city of Montreal. The French-German linguistic frontier in Switzerland crosses the upper Rhone Valley just above Sierre, but the whole canton of Valais above the elbow of the river at Martigny shows fundamental ethnic unity, indicated by identity of head form, stature and coloring.[63] Where the Elbe flows through the low plains of North Germany, its whole broad valley is occupied by a pure Teutonic population—fair, tall, long-headed; a more brunette type occupies its middle course across the uplands of Saxony, and speaks German like the downstream folk; but its upper course, hemmed in by the Erz and Riesen Mountains, shows the short, dark and broad-headed people of the Bohemian basin, speaking the Czech language.[64] On the Danube, too, the same thing is true. The upper stream is German in language and pre-

dominantly Alpine in race stock down to the Austro-Hungarian boundary; from this point to the Drave mouth it is Hungarian; and from the Drave to the Iron Gate it is Serbo-Croatian on both banks.[65] Lines of ethnic demarcation, therefore, cut the Elbe and Danube transversely, not longitudinally. [See map page 223.]

The statements of Cæsar and Pliny that the Seine and Marne formed the boundary between the Gauls and Belgians, and the Garonne that between the Gauls and Aquitanians, must be accepted merely as general and preliminary; for exceptions are noted later in the text. Parisii, for instance, were represented as holding both banks of the Seine and Marne at their confluence, and the Gallic Bituriges were found on the Aquitanian side of the Garonne estuary.

Scientific river boundaries

Only under peculiar conditions do rivers become effective as ethnic, tribal or political boundaries. Most often it is some physiographic feature which makes the stream an obstacle to communication, and lends it the character of a scientific boundary. The division of the Alpine foreland of southern Germany first into tribal and later into political provinces by the Iller, Lech, Inn, and Salzach can be ascribed in part to the tumultuous course of these streams from the mountains to the Danube, which renders them useless for communication.[66] The lower Danube forms a well maintained linguistic boundary between the Bulgarians and Roumanians, except in the northwest corner of Bulgaria, where the hill country between the Timok River and the Danube has enticed a small group of Roumanians across to the southern side. From this point down the stream, a long stretch of low marshy bank on the northern side, offering village sites only at the few places where the loess terrace of Roumania comes close to the river, exposed to overflows, strewn with swamps and lakes, and generally unfit for settlement, has made the Danube an effective barrier.[67] Similarly, the broad, sluggish Shannon River, which spreads out to lake breadth at close intervals in its course across the boggy central plain of Ireland, has from the earliest times proved a sufficient barrier to divide the plain into two portions, Connaught and Meath,[68] contrasted in history, in speech and

to some extent even in race elements.[69] A different cause gave the Thames its unique rôle among the larger English rivers as a boundary between counties from source to mouth. London's fortified position at the head of the Thames estuary closed this stream as a line of invasion to the early Saxons, and forced them to make detours to the north and south of the river, which therefore became a tribal boundary.[70]

Where navigation is peculiarly backward, a river may present a barrier. An instructive instance is afforded by the River Yo, which flows eastward through northern Bornu into Lake Chad, and serves at once as boundary and protection to the agricultural tribes of the Kanuri against the depredations of the Tibbu robbers living in the Sahara or the northern grassland. But during the dry season from April to August, when the trickling stream is sucked up by the thirsty land and thirstier air, the Tibbu horsemen sweep down on the unprotected Kanuri and retreat with their booty across the vanished barrier. The primitive navigation by reed or brushwood rafts, practiced in this almost streamless district, affords no means of retreat for mounted robbers; so the raiding season opens with the fall of the river.[71]

Rivers as political boundaries.

For political boundaries, which are often adopted with little reference to race distribution, rivers serve fairly well. They are convenient lines of demarcation and strategic lines of defense, as is proved by the military history of the Rhine, Danube, Ebro, Po, and countless other streams. On the lower Zambesi Livingstone found the territories of the lesser chiefs defined by the rivulets draining into the main river. The leader of the Makololo formally adopted the Zambesi as his political and military frontier, though his people spread and settled beyond the river.[72] Long established political frontiers may become ethnic boundaries, more or less distinct, because of protracted political exclusion. To the Romans, the Danube and Rhine as a northeastern frontier had the value chiefly of established lines in an imperfectly explored wilderness, and of strategic positions for the defense of an oft assailed border; but the long maintenance of this political frontier resulted in the partial segregation

and hence differentiation of the people dwelling on the opposite banks.

Poor as a scientific boundary, a river is not satisfactory even as a line of demarcation, because of its tendency to shift its bed in every level stretch of its course. A political boundary that follows a river, therefore, is often doomed to frequent surveys. The plantations on the meanders of the lower Mississippi are connected now with one, now with the other of the contiguous states, as the great stream straightens its course after the almost annual overflow.[73] The Rio Grande has proved a troublesome and expensive boundary between the United States and Mexico. Almost every rise sees it cutting a new channel for itself, now through Texas, now through Mexican territory, occasioning endless controversies as to the ownership of the detached land, and demanding fresh surveys. Recent changes in the lower course of the Helmund between Nasralabad and the Sistan Swamp, which was adopted in 1872 as the boundary between Afghanistan and Persia, have necessitated a new demarcation of the frontier; and on this task a commission is at present engaged.[74] In a like manner Strabo tells us that the River Achelous, forming the boundary between ancient Acarnania and Aetolia in western Hellas, by overflowing its delta region, constantly obliterated the boundaries agreed upon by the two neighbors, and thereby gave rise to disputes that were only settled by force of arms.[75]

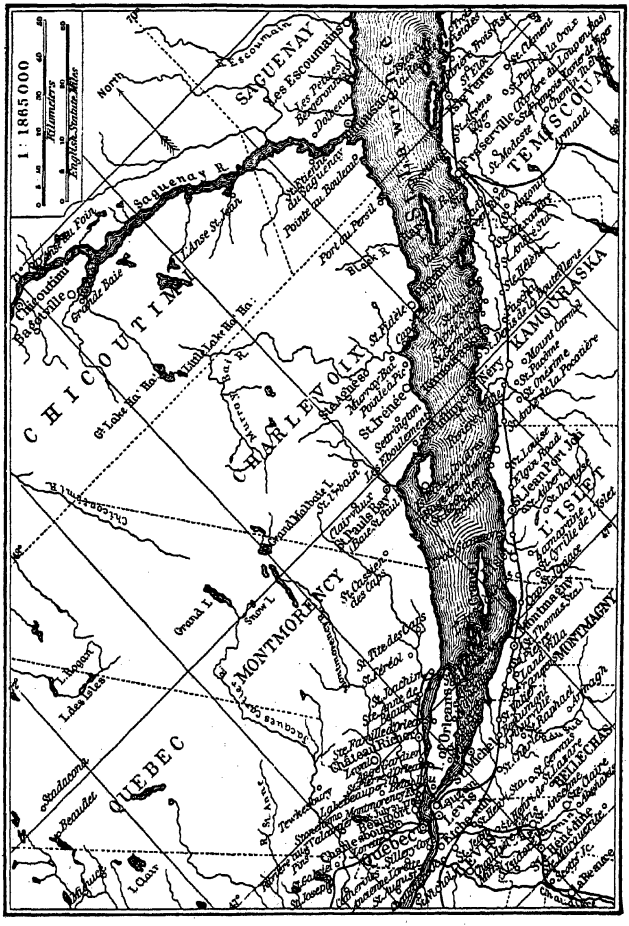
Fluvial settlements and peoples

Rivers tend always to be centers of population, not outskirts or perimeters. They offer advantages that have always attracted settlement—fertile alluvial soil, a nearby water supply, command of a natural highway for intercourse with neighbors and access to markets. Among civilized peoples fluvial settlements have been the nuclei of broad states, passing rapidly through an embryonic development to a maturity in which the old center can still be distinguished by a greater density of population. Only among savages or among civilized people who have temporarily reverted to primitive conditions in virgin colonial lands, do we find genuine riverine folk, whose existence is closely restricted to their bordering streams. The river tribes of the

Congo occupy the banks or the larger islands, while the land only three or four miles back from the stream is held by different tribes with whom the riverine people trade their fish. The latter are expert fishermen and navigators, and good agriculturists, raising a variety of fruits and vegetables. On the river banks at regular intervals are market greens, neutral ground, whither people come from up and down stream and from the interior to trade. Their long riparian villages consist of a single street, thirty feet wide and often two miles long, on which face perhaps three hundred long houses.[76] Fisher and canoe people line the Welle, the great northern tributary of the Congo.[77] The same type appeared in South America in the aboriginal Caribs and Tupis dwelling along the southern tributaries of the Amazon and the affluents of the Paraguay. These were distinctly a water race, having achieved a meager development only in navigation, fishing and the cultivation of their alluvial soil.[78] The ancient mound-builders of America located their villages chiefly, though not exclusively, along the principal watercourses, like the Mississippi, Illinois, Miami, Wabash, Wisconsin, and Fox,[79] on the very streams later dotted by the trading posts of the French voyageurs.

Riparian villages of French Canada.

The presence of the great waterways of Canada and the demand of the fur trade for extensive and easy communication made the early French colonists as distinctly a riverine people as the savage Congo tribes. Like these, they stretched out their villages in a single line of cabins and clearings, three or four miles long, facing the river, which was the King's highway. Such a village was called a *côte*. One *côte* ran into the next, for their expansion was always longitudinal, never lateral. These riparian settlements lined the main watercourses of French Canada, especially the St. Lawrence, whose shores from Beaupre, fifteen miles below Quebec, up to Montreal at an early date presented the appearance of a single street. Along the river passed the stately trading ship from France with its cargo of wives and merchandise for the colonists, the pirogue of the *habitant* farmer carrying his onions and grain to the Quebec market, the birchbark canoe of the adventurous voyageur bringing



THE RIPARIAN VILLAGES OF THE LOWER ST. LAWRENCE.

down his winter's hunt of furs from the snow-bound forests of the interior, and the fleet of Jesuit priests bound to some remote inland mission.

On this water thoroughfare every dwelling faced. Hence land on the river was at a premium, while that two miles back was to be had for the taking. The original grants measured generally 766 feet in width and 7,660 in depth inland; but when bequeathed from generation to generation, they were divided up along lines running back at right angles to the all important waterway. Hence each *habitant* farm measured its precious river-front by the foot and its depth by the mile, while the cabins were ranged side by side in cosy neighborliness. The *côte* type of village, though eminently convenient for the Indian trade, was ill adapted for government and defense against the savages; but the need for the communication supplied by the river was so fundamental, that it nullified all efforts of the authorities to concentrate the colonists in more compact settlements. Parkman says: "One could have seen almost every house in Canada by paddling a canoe up the St. Lawrence and Richelieu."[80] The same type of land-holding can be traced today on the Chaudiere River, where the fences run back from the stream like the teeth of a comb. It is reproduced on a larger scale in the long, narrow counties ranged along the lower St. Lawrence, whose shape points to the old fluvial nuclei of settlement. Similarly the early Dutch grants on the Hudson gave to the patroons four miles along the river and an indefinite extension back from the stream. In the early Connecticut River settlements, the same consideration of a share in the river and its alluvial bottoms distributed the town lots among the inhabitants in long narrow strips running back from the banks.[81]

Boatman tribes or castes.

In undeveloped countries, where rivers are the chief highways, we occasionally see the survival of a distinct race of boatmen amid an intruding people of different stock, preserved in their purity by their peculiar occupation, which has given them the aloofness of a caste. In the Kwang-tung province of southern China are 40,000 Tanka boat people, who live in boats and pile-dwellings in the Canton River.

The Chinese, from whom they are quite distinct, regard them as a remnant of the original population, which was dislodged by their invasion and forced to take refuge on the water. They gradually established intercourse with the conquerors of the land, but held themselves aloof. They marry only among themselves, have their own customs, and enjoy a practical monopoly of carrying passengers and messages between the steamers and the shore at Macao, Hongkong and Canton.[82] In the same way, the middle Niger above Gao possesses a distinct aquatic people, the Somnos or Bosos, who earn their living as fishermen and boatmen on the river. They spread their villages along the Niger and its tributaries, and occupy separate quarters in the large towns like Gao and Timbuctoo. They are creatures of the river rather than of the land, and show great skill and endurance in paddling and poling their narrow dugouts on their long Niger voyages.[83]

Reference has been made before to the large river population of China who live on boats and rafts, and forward the trade of the vast inland waterways. These are people, differentiated not in race, but in occupation and mode of life, constantly recruited from the congested population of the land. Allied to them are the trackers or towing crews whose villages form a distinctive feature of the turbulent upper Yangtze, and who are employed, sometimes three hundred at a time, to drag junks up the succession of rapids above Ichang.[84] Similarly the complex of navigable waterways centering about Paris, as far back as the reign of Tiberius Cæsar, gave rise to the *Nautae Parisii* or guild of mariners, from whom the city of Paris derived its present coat of arms—a vessel under full sail. These Lutetian boatmen handled the river traffic in all the territory drained by the Seine, Marne, and Oise. Later, in the reign of Louis the Fat, they were succeeded by the *Mercatores aquae Parisiaci*, and from them sprang the municipal body appointed to regulate the river navigation and commerce.[85]

River islands as protected sites.

The location of the ancient tribe of the Parisii is typical of many other weak riverine folk who seek in the islands of a river a protected position to compensate for their

paucity of number. The Parisii, one of the smallest of the Gallic tribes, ill-matched against their populous neighbors, took refuge on ten islands and sandbars of the Seine and there established themselves.[86] Stanley found an island in the Congo near the second cataract of Stanley Falls occupied by five villages of the Baswa, who had taken refuge there from the attacks of the bloodthirsty Bakuma.[87] During the Tartar invasions of Russia in the thirteenth and fourteenth centuries, bands of refugees from the surrounding country gathered for mutual defense on the islands of the Dnieper River, and became the nucleus of the Dnieper Cossacks.[88] The Huron tribe of American Indians, reduced to a mere fragment by repeated Iroquois attacks, fled first to the islands of St. Joseph and Michilimackinac in Lake Huron, and in 1656 to the Isle of Orleans in the St. Lawrence. But even this location under the guns of their French allies in Quebec failed to protect them, for the St. Lawrence was a highway for the war fleets of their implacable foe.[89]

River and lake islands as robber strongholds.

A river island not only confers the negative benefit of protection, but affords a coign of vantage for raids on the surrounding country, being to some extent proof against punitive attacks. It offers special facilities for depredations on parties crossing the river; here the divided current, losing something of its force, is less of an obstacle, and the island serves as a resting place on the passage. Immunity from punishment breeds lawlessness. The Ba Toka who, fifty years ago, inhabited the islands in the great southern bend of the Zambesi, utilized their location to lure wandering tribes on to their islands, under the pretext of ferrying them across, and then to rob them, till Sebituane, the great Makololo chief, cleaned out their fastnesses and opened the river for trade.[90] The islands in the wide stretches of the Lualaba River in the Babemba country were described to Livingstone as harboring a population of marauders and robbers, who felt themselves safe from attack.[91] The same unenviable reputation attaches to the Budumas of the Lake Chad islands. A weak, timid, displaced people, they nevertheless lose no chance of raiding the herds of the Sudanese tribes inhabiting the shores of the Lake, and carrying off

the stolen cattle on their wretched rafts to their island retreats.[92]

River peninsulas as protected sites.

The protection of an island location is almost equalled in the peninsulas formed by the serpentines or meanders of a river. Hence these are choice sites for fortress or settlement in primitive communities, where hostilities are always imminent and rivers the sole means of communication. The defensive works of the mound-builders in great numbers occupied such river peninsulas. The neck of the loop was fortified by a single or double line of ditch and earthen wall, constructed from bank to bank of the encircling stream.[93] This was exactly the location of Vesontio, now Besançon, once the ancient stronghold of the Sequani in eastern Gaul. It was situated in a loop of the Dubis, so nearly a circle that its course seems to have been "described by a compass," Cæsar says, while fortifications across the isthmus made the position of the town almost impregnable.[94] Verona, lying at the exit of the great martial highway of the Brenner Pass, occupies just such a loop of the Adige, as does Capua on the Volturno, and Berne on the Aare. Shrewsbury, in the Middle Ages an important military point for the preservation of order on the marches of Wales, is almost encircled by the River Severn, while a castle on the neck of the peninsula completes the defense on the land side.[95] Graaf Reinett, at one time an exposed frontier settlement of the Dutch in Cape Colony, had a natural moat around it in the Sunday River, which here describes three-fourths of a circle.

River islands as sites of trading posts and colonies.

The need of protection felt by all colonists in new countries amid savage or barbarous people whom encroachment sooner or later makes hostile, leads them if possible to place their first trading posts and settlements on river islands, especially at the mouth of the streams, where a delta often affords the site required, and where the junction of ocean and river highway offers the best facilities for trade. A river island fixed the location of the English settlement at Jamestown in Virginia, the French at Montreal and New Orleans, the Dutch at Manhattan and Van Rensselær Island in the Hudson, the Swedes at Tinicum Island in the Delaware River a few miles below the mouth

of the Schuylkill.[96] St. Louis, located on a delta island of the Senegal River, is one of the oldest European towns in West Africa;[97] and Bathurst, founded in 1618 on a similar site at the mouth of the Gambia, has for centuries now been the safe outlet for the trade of this stream.[98] Such island settlements at river mouths are a phenomenon of the outer edge of every coastal region; but inland stations for trade or military control also seek the protection of an island site. The Russians in the seventeenth century secured their down-stream conquest of the Amur by a succession of river island forts,[99] which recall Colonel Byrd's early frontier post on an island in the Holston River, and George Rogers Clark's military stockade on Corn Island in the Ohio, which became the nucleus of the later city of Louisville.

Swamps as barriers and boundaries.

More effective than rivers in the protection which they afford are swamps. Neither solid land nor navigable water, their sluggish, passive surface raises an obstacle of pure inertia to the movements of mankind. Hence they form one of those natural boundaries that segregate. In southern England, Romney Marsh, reinforced by the Wealden Forest, fixed the western boundary of the ancient Saxon kingdom of Kent by blocking expansion in that direction, just as the bordering swamps of the Lea and Colne rivers formed the eastern and western boundaries of Middlesex.[100] The Fen-land of the Wash, which extended in Saxon days from the highland about Lincoln south to Cambridge and Newmarket, served to hem in the Angles of Norfolk and Suffolk on the west, so that the occupation of the interior was left to later bands who entered by the estuaries of the Humber and Forth.[101] In northern Germany, the low cross valleys of the Spree, Havel and Netze rivers, bordered by alder swamps, were long a serious obstacle to communication, and therefore became boundaries of districts,[102] just as the Bourtanger Moor drew the dividing line between Holland and Hanover.

Swamps as regions of survival.

Swamp-bordered regions, as areas of natural isolation, guard and keep intact the people which they hold. Therefore they are regions of survival of race and language. The scattered islets of the Fens of England furnished an asylum

to the early British Celts from Teutonic attacks,[103] and later protected them against dominant infusion of Teutonic blood. Hence to-day in the Fenland and in the district just to the south we find a darker, shorter people than in the country to the east or west.[104] Similarly the White Russians, occupying the poor, marshy region of uncertain watershed between the sources of the Duna, Dnieper and Volga, have the purest blood of all the eastern Slavs, though this distinction is coupled with poverty and retarded culture,[105] a combination that anthropo-geography often reveals. Wholly distinct from the Russians and segregated from them by a barrier of swampy forests, we find the Letto-Lithuanians in the Baltic province of Courland, speaking the most primitive form of flectional languages classed as Aryan. The isolation which preserved their archaic speech, of all European tongues the nearest to the Sanskrit, made them the last European people to accept Christianity.[106] The great race of the Slavic Wends, who once occupied all northern Germany between the Vistula and Elbe, has left only a small and declining remnant of its language in the swampy forests about the sources of the Spree.[107] [See ethnographical map, p. 223.] The band of marshlands stretching through Holland from the shallow Zuyder Zee east to the German frontier, has given to Friesland and the coast islands of Holland a peculiar isolation, which has favored the development and survival of the peculiar Friesian dialect, that speech so nearly allied to Saxon English, and has preserved here the purest type of the tall, blond Teuton among the otherwise mixed stock of the Netherlands.[108]

Swamps as places of refuge.

Inaccessible to all except those familiar with their treacherous paths and labyrinthine channels, swamps have always afforded a refuge for individuals and peoples; and therefore as places of defense they have played no inconspicuous part in history. What the Dismal Swamp of North Carolina and the cypress swamps of Louisiana were to the runaway slaves, that the Everglades of Florida have been to the defeated Seminoles. In that half-solid, half-fluid area, penetrable only to the native Indian who poles his canoe along its tortuous channels of liquid mud, the Seminoles

have set up their villages on the scattered hummocks of solid land, and there maintained themselves, a tribe of 350 souls, despite all efforts of the United States government to remove them to the Indian Territory. The swamps of the Nile delta have been the asylum of Egyptian independence from the time King Amysis took refuge there for fifty years during an invasion of the Ethiopians,[109] to the retreat thither of Amyrtaeus, a prince of Sais, after his unsuccessful revolt against the Persian conqueror Artaxerxes I.[110] The Isle of Athelney among the marshes of the Parret River afforded a refuge to Alfred the Great and a band of his followers during the Danish invasion of Wessex in 878,[111] while the Isle of Ely in the Fenland was another point of sustained resistance to the invaders. It was the Fenland that two hundred years later was the last stronghold of Saxon resistance to William of Normandy. Here on the Isle of Ely the outlawed leader Hereward maintained Saxon independence, till the Conqueror at last constructed a long causeway across the marshes to the "Camp of Refuge."[112]

The spirit of the marshes.

The spirit of the marshlands is the spirit of freedom. Therefore these small and scarcely habitable portions of the land assume an historical dignity and generate stirring historical events out of all proportion to their size and population. Their content is ethical rather than economic. They attract to their fastnesses the vigorous souls protesting against conquest or oppression, and then by their natural protection sustain and nourish the spirit of liberty. It was the water-soaked lowlands of the Rhine that enabled the early Batavians,[113] Ditmarscher and Frieslanders to assert and to maintain their independence, generated the love of independence among the Dutch and helped them defend their liberty against the Spanish[114] and French. So the Fenland of England was the center of resistance to the despotism of King John, who therefore fixed his headquarters for the suppression of the revolt at Lincoln and his military depôt at Lynn. Later in the conflict of the barons with Henry III, Simon de Montfort and other disaffected nobles entrenched themselves in the islands of Ely and Axholm, till the Provisions of Oxford in 1267 secured them some de-

gree of constitutional rights.[115] Four centuries later the same spirit sent many Fenlanders to the support of Cromwell.

Economic and political importance of lakes.

A river that spreads out into the indeterminate earth-form of a marsh is an effective barrier; but one that gathers its waters into a natural basin and forms a lake retains the uniting power of a navigable stream and also, by the extension of its area and elimination of its current, approaches the nature of an enclosed sea. Mountain rivers, characterized by small volume and turbulent flow, first become navigable when they check their impetuosity and gather their store of water in some lake basin. The whole course of the upper Rhone, from its glacier source on the slope of Mount Furca to its confluence with the Saone at Lyon, is unfit for navigation, except where it lingers in Lake Geneva. The same thing is true of the Reuss in Lake Lucerne, the upper Rhine in Lake Constance, the Aare in Thun and Brienze, and the Linth in Lake Zurich. Hence such torrent-fed lakes assume economic and political importance in mountainous regions, owing to the paucity of navigable waterways. The lakes of Alpine Switzerland and Italy and of Highland Scotland form so many centers of intercourse and exchange. Even such small bodies of water as the Alpine lakes have therefore become goals of expansion, so that we find the shores of Geneva, Maggiore, Lugano, and Garda, each shared by two countries. Switzerland, the Austrian Tyrol, and the three German states of Baden, Wurtemberg and Bavaria, have all managed to secure a frontage upon Lake Constance. Lake Titicaca, lying 12,661 feet (3854 meters) above sea level but affording a navigable course 136 miles (220 kilometers) long, is an important waterway for Peru and Bolivia. In the central Sudan, where aridity reduces the volume of all streams, even the variable and indeterminate Lake Chad has been an eagerly sought objective for expanding boundaries. Twenty years ago it was divided among the native states of Bornu, Bagirmi and Kanem; today it is shared by British Nigeria, French Sudan, and German Kamerun. The erratic northern extension of the German boundary betrays the effort to reach this goal.

Lakes as nuclei of states.

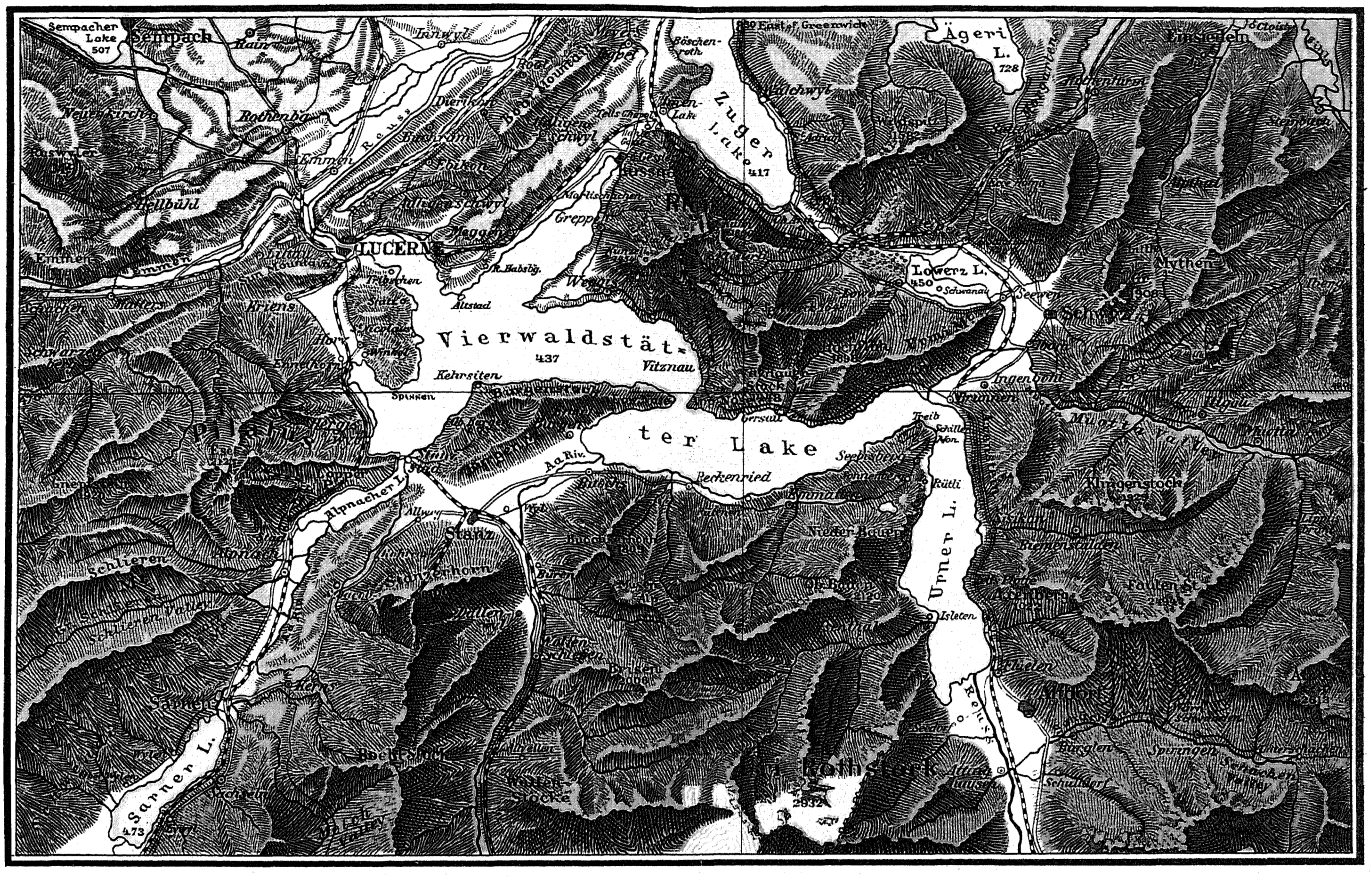
The uniting power of lakes manifests itself in the tendency of such basins to become the nuclei of states. Attractive to settlement in primitive times, because of the protected frontier they afford—a motive finding its most emphatic expression in the pile villages of the early lake-dwellers—later because of the fertility of their bordering soil and the opportunity for friendly intercourse, they gradually unite their shores in a mesh of reciprocal relations, which finds its ultimate expression in political union. It is a significant fact that the Swiss Confederation originated in the four forest cantons of Lucerne, Schwyz, Uri and Unterwalden, which are linked together by the jagged basin of Lake Lucerne or the Lake of the Four Forest Cantons, as the Swiss significantly call it, but are otherwise divided by mountain barriers. So we find that Lake Titicaca was the cradle of the Inca Empire, just as Lake Tezcoco was that of the Toltecs in Mexico and an island in Lake Chalco later that of the Aztec domain.[116] The most stable of the short-lived native states of Africa have apparently found an element of strength and permanence in a protected lake frontier. Such are the petty kingdoms of Bornu, Bagirmi and Kanem on Lake Chad, and Uganda on Victoria Nyanza.

Large lakes, which include in their area islands, peninsulas, tides, currents, fiords, inlets, deltas, and dunes, and present every geographical feature of an enclosed sea, approach the latter too in historical importance. Some of the largest, however, have long borne the name of seas. The Caspian, which exceeds the Baltic in area, and the Aral, which outranks Lake Michigan, show the closest physical resemblance to thalassic basins, because of their size, salinity and enclosed drainage systems; but their anthropo-geographical significance is slight. The very salinity which groups them with the sea points to an arid climate that forever deprives them of the densely populated coasts characteristic of most enclosed seas, and hence reduces their historical importance. Their tributary streams, robbed of their water by irrigation canals, like "the shorn and parcelled Oxus", renounce their function of highways into the interior. To this rule the Volga is a unique exception. Finally, cut off from union

SCALE 1:300 000

0 1 2 3 4 5 6

KILOMETERS



LAKE OF THE FOUR FOREST CANTONS.

BIRTHPLACE OF THE SWISS CONFEDERATION.

with the ocean, these salt lakes lose the supreme historical advantage which is maintained by freshwater lakes, like Ladoga, Nyassa, Maracaibo and the Great Lakes of North America, all lying near sea level.

Lakes as fresh water seas.

Lakes as part of a system of inland waterways may possess commercial importance surpassing that of many seas. This depends upon the productivity, accessibility and extent of their hinterland, and this in turn depends upon the size and shape of the inland basin. The chain of the five Great Lakes, which together present a coastline of four thousand miles and a navigable course as long as the Baltic between the Skager Rack and the head of the Gulf of Bothnia, constitutes a freshwater Mediterranean. It has played the part of an enclosed sea in American history and has enabled the Atlantic trade to penetrate 1400 miles inland to Chicago and Duluth. Its shores have therefore been a coveted object of territorial expansion. The early Dutch trading posts headed up the Hudson and Mohawk toward Lake Ontario, as did the English settlements which succeeded them. The French, from their vantage point at Montreal, threw out a frail casting-net of fur stations and missions, which caught and held all the Lakes for a time. Later the American shores were divided among eight of our states. The northern boundaries of Indiana and Illinois were fixed by Congress for the express purpose of giving these commonwealths access to Lake Michigan. Pennsylvania with great difficulty succeeded in protruding her northwestern frontier to cover a meager strip of Erie coast, while New York's frontage on the same lake became during the period of canal and early railroad construction, a great factor in her development.

In 1901, the tonnage of our merchant vessels on the Great Lakes was half that of our Pacific, Atlantic and Gulf coasts combined,[117] constituting a freshwater fleet greater than the merchant marine of either France or sea-bred Norway. A remote but by no means faint echo of this fact is found in the five hundred or more boats, equally available for trade or war, which Henry M. Stanley saw the Uganda prince muster on the shore of Victoria Nyanza Lake.

Ocean, sea, bay, estuary, river, swamp, lake: here is Nature's great circle returning upon itself, a circle faintly notched into arcs, but one in itself and one in man's uses.

NOTES TO CHAPTER XI

1. Isabella B. Bishop, The Yangtze Valley and Beyond, Vol. I, pp. 26-27. New York and London, 1900.
2. Fiske, Discovery of America, Vol. I, p. 492. Boston, 1892.
3. Capt. James Cook, Voyage to the Pacific Ocean, 1776-1780, Vol. 11, pp. 321-332. New York, 1796.
4. John Richard Green, The Making of England, Vol. I, pp. 63-66, 84-86, 95, 96. London, 1904.
5. E. Lavisse, *Histoire de France,* Vol. II, Part I, pp. 374-375, 378-379, 381-382, 385-386. Paris, 1903.
6. Helmolt, History of the World, Vol. I, pp. 189-191, map. New York, 1902-1906.
7. *Ibid.,* Vol. I, pp. 192-194.
8. G. W. Kitchen, History of France, Vol. I, pp. 59-60. Oxford, 1892.
9. Dietrich Schaeffer, *Die Hansestädte und König Waldemar von Dänemark,* p. 36. Jena, 1879.
10. G. G. Chisholm, Commercial Geography, p. 311. London, 1904.
11. Capt. A. T. Mahan, The Problem of Asia, pp. 41, 60, 120. New York, 1900.
12. Isabella B. Bishop, The Yangtze Valley and Beyond, Vol. I, pp. 97-98. New York and London, 1900.
13. E. C. Semple, Development of the Hanse Towns in Relation to their Geographic Environment, Bulletin Amer. Geog. Soc., Vol. 31. No. 3. 1899.
14. Nordenskiold, Voyage of the Vega, pp. 519-530, 552. New York, 1882. Anatole Leroy-Beaulieu, The Empire of the Tsars, Vol. I, Note pp. 278-281. New York, 1902.
15. Agnes Laut, Voyagers of the Northern Ocean, *Harper's Magazine,* January, 1906.
16. Alexis Krausse, Russia in Asia, pp. 21-54. New York, 1899.
17 Felix Dubois, Timbuctoo, pp. 198-199, 251-257. New York, 1896.
18. *Ibid.,* p. 38.
19. D. Livingstone, Missionary Travels, pp. 71, 177. New York, 1858.
20. W. Deecke, Italy, p. 87. London, 1904.
21. G. Adam Smith, Historical Geography of the Holy Land, map facing p. 167; also pp. 287, 327-328. New York, 1897.
22. F. M. Stapff, *Karte des unteren Khiusebthal, Petermanns Mitteilungen,* p. 202. July, 1885.
23. Strabo, Book III, chap. II, 4.
24. For full discussion, see Roscher, *National-Oekonomik des Handels und Gewerbefleisses.* Stuttgart, 1889.
25. Rambaud, History of Russia, Vol. I, pp. 24-28. Boston, 1886.

26. A. B. Hulbert, Historic Highways of America, Vol. VII, Portage Paths, pp. 182-183, 187-188. Cleveland, 1903.

27. Herodotus, Book I, 194. A H. Layard, Nineveh and Its Remains, Vol. II, pp. 79-81. New York, 1849.

28. Charles W. Hawes, The Uttermost East, p. 60. New York, 1904.

29. Transportation by Water in 1906, Table 30, p. 181. Report of Department of Commerce and Labor, Washington, 1908.

30. G. G. Chisholm, Commercial Geography, p. 277. London, 1904.

31. E. A. Freeman, Historical Geography of Europe, p. 466. London. 1882.

32. J. Ellis Barker, Modern Germany, pp. 68-85. London, 1907.

33. Heinrich von Treitschke, *Politik*, Vol. I, p. 218. Leipzig, 1897.

34. E. A. Freeman, Historical Geography of Europe, p. 466. London, 1882.

35. G. G. Chisholm, Commercial Geography, p. 511. London, 1904.

36. J. Partsch, Central Europe, p. 318. London, 1903.

37. Ratzel, *Politische Geographie*, pp. 739-740. Munich, 1903.

38. Annual Register for 1901, p. 358. New Series, London and New York, 1902.

39. H. R. Mill, International Geography, p. 958. New York, 1902.

40. Ratzel, History of Mankind, Vol. III, p. 473. London, 1896-1898.

41. H. R. Mill, International Geography, p. 406. New York, 1902.

42. G. G. Chisholm, Commercial Geography, map p. 312. London, 1904.

43. Blanqui, History of Political Economy, pp. 273, 277, 296. New York, 1880.

44. Albert Gallatin, American State Papers, Misc. Doc., Vol. I, No. 250. Washington, 1834.

45. Roscher, *National-Oekonomik des Handels und Gewerbefleisses*, pp. 449, 453-454. Stuttgart, 1889.

46. H. R. Mill, International Geography, pp. 530-531. New York, 1902.

47. G. G. Chisholm, Commercial Geography, pp. 310, 312. London, 1904.

48. J. Partsch, Central Europe, p. 314. London, 1903.

49. Statesman's Yearbook for 1907.

50. Henry Norman, All the Russias, pp. 254-255, 285-292. New York, 1902.

51. E. C. Semple, American History and Its Geographic Conditions, pp. 251-255. Boston, 1903.

52. E. F. Knight, Where Three Empires Meet, p. 6. London, 1897.

53. Strabo, Book IV, chap. VI, 7.

54. Alexis Krausse, Russia in Asia, pp. 361-362. New York, 1899.

55. Angus Hamilton, Afghanistan, pp. 137-141. New York and London, 1906. Henry Norman, All the Russias, pp. 276-277. New York, 1902.

56. *Bello Gallico*, Book IV, chap. IV.

57. *Ibid.*, Book I, chap. XXXI; Book II, chap. III; Book IV, chap. I.

58. Journals of Dr. Thomas Walker and Christopher Gist, p. 129. Filson Club Publications, Louisville, 1898.

59. H. R. Schoolcraft, Indian Tribes of the United States, Vol. III, pp. 248-249. Philadelphia, 1853.

60. Martha K. Genthe, The Valley Towns of Connecticut, Bull. of Amer. Geog. Society, Vol. 39, pp. 1-7. New York, 1907.

61. Ratzel, History of Mankind, Vol. III, pp. 181-182, 192. London, 1898.

62. H. R. Mill, International Geography, p. 495. New York, 1902.

63. W. Z. Ripley, Races of Europe, pp. 284-285. New York, 1899.

64. *Ibid.*, Maps pp. 222, 340, 350.

65. *Ibid.*, Maps pp. 402, 429.

66. J. Partsch, Central Europe, pp. 43, 241. London, 1903.

67. *Ibid.*, p. 69. Sydow-Wagner, *Methodischer Schul-Atlas*, compare maps No. 13 and No. 25.

68. Elisée Reclus, Europe, Vol. IV, pp. 380, 389-390. New York, 1882.

69. W. Z. Ripley, Races of Europe, p. 318, map. New York, 1899.

70. H. J. Mackinder, Britain and the British Seas, pp. 202-203. London, 1904.

71. Boyd Alexander, From the Niger to the Nile, Vol. I, pp. 168, 169, 232, 306-307. London, 1907.

72. Livingstone, Missionary Travels, pp. 102, 642. New York, 1858.

73. See Century Atlas, maps of Mississippi, Louisiana and Arkansas for boundary line of 1850.

74. Sir Thomas Holdich, India, p. 57. London, 1905.

75. Strabo, Book X, chap. II, 19.

76. Henry M. Stanley, Through the Dark Continent, Vol. II, pp. 120-124, 155-158, 168, 169, 173, 176, 177, 182, 266-274, 327. New York, 1879.

77. Boyd Alexander, From the Niger to the Nile, Vol. II, pp. 252, 269-270. London, 1907.

78. Helmolt, History of the World, Vol. I, pp. 189, 192-194. New York, 1902-1906.

79. Cyrus Thomas, Mound Explorations, pp. 526-527, 531, 551. Twelfth Annual Report of Bureau of Ethnology, Washington, 1894.

80. Parkman, The Old Regime in Canada, pp. 292-303. Boston, 1904. E. C. Semple, The Influences of Geographic Environment on the Lower St. Lawrence, Bull. of Amer. Geog. Society, Vol. 36, pp. 449-466. 1904.

81. Martha Krug Genthe, Valley Towns of Connecticut, pp. 10-12, figures V. and VI, Bull. of Amer. Geog. Society, Vol. 39, 1907.

82. J. Nacken, *Die Provinz Kwantung und ihre Bevölkerung, Petermanns Mitteilungen*, Vol. 24, p. 421, 1878. W. M. Wood, Fankwei, pp. 276-277. New York, 1859.

83. Felix Dubois, Timbuctoo, pp. 19-22, 38. New York, 1896.

84. Isabella B. Bishop, The Yangtze Valley and Beyond, Vol. I, pp. 164, 174-175, 179, 182, 189, 215. London and New York, 1900.

85. William Walton, Paris, Vol. I, pp. 31-32, 35. Philadelphia, 1899.

86. Cæsar, *Bello Gallico*, Book VIII, chaps, 57, 58.

87. Henry M. Stanley, Through the Dark Continent, Vol. II, pp. 227-228. New York, 1879.

88. Article, Cossack, Encyclopedia Britannica.

89. Parkman, The Jesuits in North America, pp. 292-303, 498-505, 534, 535. Boston, 1904.

90. Livingstone, Mission. ry Travels, pp. 100, 102. New York, 1858.

91. Livingstone, Last Journals, Vol. I, p. 359. London, 1874.

92. Heinrich Barth, Travels in North and Central Africa, Vol. II, pp. 64, 66, 233. New York, 1857. Boyd Alexander, From the Niger to the Nile, Vol. I, pp. 237, 303-304, 320, 331-336; Vol. II, pp. 54, 56-58, 67-68, 96-99, 104-105. London, 1907.

93. J. P. McLean, The Mound Builders, p. 20. Cincinnati, 1904. Squier and Davis, Ancient Monuments of the Mississippi Valley, pp. 6, 9, 10. New York, 1848.

94. Cæsar, *Bello Gallico*, Book I, chaps. 38, 39.

95. Elisée Reclus, Europe, Vol. IV, pp. 101-102. New York, 1882.

96. John Fiske, Dutch and Quaker Colonies in America, Vol. I, p. 241. Boston.

97. H. R. Mill, International Geography, p. 956. New York, 1902.

98. H. B. George, Historical Geography of the British Empire, pp. 259-260. London, 1904.

99. Alexis Krausse, Russia in Asia, pp. 30-33, 50. New York, 1899.

100. H. J. Mackinder, Britain and the British Seas, pp. 198-199. London, 1904.

101. John Richard Green, The Making of England, Vol. I, pp. 63, 66. London, 1904.

102. J. Partsch, Central Europe, p. 102. London, 1903.

103. Miller and Skertchley, The Fenland Past and Present, pp. 10, 11, 27-30. London, 1878.

104. W. Z. Ripley, Races of Europe, pp. 322-323. Map p. 327. New York, 1899.

105. Anatole Leroy-Beaulieu, The Empire of the Tsars, Vol. I, p. 108. New York, 1893.

106. *Ibid.*, pp. 104-106. W. Z. Ripley, Races of Europe, pp. 340-342, 352, 365. New York, 1899.

107. J. Partsch, Central Europe, p. 135. London, 1903.

108. *Ibid.*, p. 133. W. Z. Ripley, Races of Europe, pp. 294-295. New York, 1899.

109. Herodotus, II, 137, 140.

110. Thucydides, I, 110. Brugsch-Bey, History of Egypt, Vol. II, p. 333. London, 1881.

111. John Richard Green, History of the English People, Vol. I, chap. III, p. 71.

112. Miller and Skertchley, The Fenland Past and Present, pp. 83, 101, 104, 107, 108. London, 1878.

113. Tacitus, History of the Germans, Book VI, chap. VI. Motley, Rise of the Dutch Republic, Vol. I, pp. 2-5, 13. New York, 1885.

114. J. Partsch, Central Europe, p. 299. London, 1903.

115. Miller and Skertchley, The Fenland Past and Present, pp. 113-114. London, 1878.

116. Edward John Payne, History of the New World Called America, Vol. I, pp. 327-328, 502-503. Oxford, 1892. Ratzel, History of Mankind, Vol. II, p. 163. London, 1896-1898.

117. U. S. Report of Commission of Navigation, p. 10. Washington, 1901.

CHAPTER XII

CONTINENTS AND THEIR PENINSULAS

Insularity of the land-masses.

THE division of the earth's surface into 28 per cent. land and 72 per cent. water is an all important fact of physical geography and anthropo-geography. Owing to this proportion, the land-masses, which alone provide habitats for man, rise as islands out of the three-fold larger surface of the uninhabitable ocean. Consequently, the human species, like the other forms of terrestrial life, bears a deeply ingrained insular character. Moreover, the water causes different degrees of separation between the land-masses, according as it appears as inlet, strait, sea, an island-strewn or islandless ocean; it determines the grouping of the habitable areas and consequently the geographic basis of the various degrees of ethnic and cultural kinship between the divisions of land. Finally, since the sea is for man only a highway to some ulterior shore, this geography of the land-masses in relation to the encompassing waters points the routes and goals of human wanderings.

Each fragment of habitable land, large or small, continent or islet, means a corresponding group or detachment of the vast human family. Its size fixes the area at the service of the group which occupies it. Its location, however, may either endow it with a neighborliness like that subsisting between Africa and Europe and involving an interwoven history; or remoteness like that of South America from Australia, so complete that even the close net of intercourse thrown by modern commerce over the whole world has scarcely sufficed to bring them into touch. Therefore the highly irregular distribution of the land areas, here compactly grouped, there remote, deserves especial attention, since it produces far-reaching results. Finally, continents and islands, by their zonal situation, their land forms, rainfall, river systems, flora and fauna, produce for man varied life

conditions, which in their turn are partially dependent upon the size and grouping of the land-masses.

Classification of land-masses according to size and location.

A comparison of the large and small land-masses of the earth from the standpoint of both physical and anthropological geography yields a classification based upon size and location on the one hand, and historical influences on the other. The following table indicates the relation between the two.

I. Independent Land-masses.

A. *Continents.* Independent by reason of size, which enables them to support a large number of people and afford the conditions for civilization.

(a) Insular continents, whose primitive and modern development are marked by remoteness. Australia.

(b) Neighboring continents, separated by narrow seas and showing community of historical events. Europe and Africa. Asia and North America around Bering Sea.

B. *Islands.* Independent by reason of location.

(a) Oceanic islands, characterized by greatest remoteness from continents and other islands, and also by independent or detached history. St. Helena and Iceland.

(b) Member of a group of oceanic islands, therefore less independent. Hawaii, Fayal in the Azores, Tongatabu.

(c) Large islands, approaching by reason of size the independence of continents and thereby finding compensation for a less independent location. New Guinea, Borneo, Madagascar; in a cultural sense, Great Britain and Japan.

II. Dependent Land-masses.

(a) Inshore or coast islands, whose history is intimately connected with that of the nearby mainland. Euboea, Long Island, Vancouver, Sakhalin, Ceylon.

(b) Neighboring islands, showing less intimate historical relations. Formosa, the Canaries, Ireland in contrast to Great Britain.

(c) Islands of enclosed or marginal seas, contained in a circle of lands and exposed to constant intercourse from all sides. Jamaica, Java, Crete, Sicily, Zealand, Gotland, St. Lawrence in Bering Sea.

(d) Island groups not to be considered apart from other groups. Samoa, Fiji and Friendly Isles; Philippine, Sulu and Sunda Islands; Greater and Lesser Antilles.

Effect of size of land-masses.

As the homes of man, these land-masses vary greatly owing to difference of size. Only the six continents have been large enough to generate great bodies of people, to produce differentiated branches of the human family, and to maintain them in such numerical force that alien intermixtures were powerless essentially to modify the gradually developing ethnic type. The larger continents are marked by such diversity of climate, relief and contour, that they have afforded the varied environments and the area for the development of several great types or sub-types of mankind. Australia has been just large enough to produce one distinct native race, the result of a very ancient blend of Papuan and Malayan stocks. But prevailing aridity has cast a mantle of monotony over most of the continent, nullifying many local geographic differences in highland and lowland, curtailing the available area of its already restricted surface, and hence checking the differentiation that results either from the competition of large numbers or from a varied environment. We find Australia characterized above all other continents by monotony of culture, mode of life, customs, languages, and a uniform race type from the Murray River to York peninsula.[1] The twin continents of the Americas developed a race singularly uniform in its physical traits,[2] if we leave out of account the markedly divergent Eskimos, but displaying a wide range of political, social and economic developments, from the small, unorganized groups of wandering savages, like the desert Shoshones and coast Fuegians, to the large, stable empire of the Incas, with intensive agriculture, public works, a state religion and an enlightened government.

Even the largest islands of the world, such as Borneo,

New Guinea and Madagascar, show no such independent ethnic development. This is the distinguishing characteristic of the largest land-masses. Europe, except on the basis of its size and peninsula form, has no title to the name of continent; certainly not on anthropo-geographical grounds. Its classification as a continent arose in the Mediterranean among the Greeks, as a geographical expression of the antagonism between themselves and their Carian, Phœnician and Persian enemies across the Aegean; the idea had therefore a political origin, and was formed without knowledge of that vast stretch of plains between the Black Sea and the Arctic Ocean, where Asia's climate and races lap over into Europe, and where to-day we find the Muscovite Empire, in point of geographic conditions, its underlying ethnic stock and form of government, as much Asiatic as European. The real or western Europe, which the Roman Empire gradually added to the narrow Europe of the Greeks, and which is strikingly contrasted to Asia in point of size, relief, contour, climate and races, only served to maintain the distinction between the two continents in men's minds. But from a geographical standpoint the distinction is an error. It has confused the interpretation of the history of the Greeks and the development of the Russians. It has brought disorder into the question of the European or Asiatic origin of the Aryan linguistic family, which the anthropo-geographer would assign to the single continent of Eurasia. The independent development that falls to the lot of great world islands like the Americas and Australia is impossible in a peninsular continent like Europe, large as it is.

Independence of location versus independence of size.

The independence of a land-mass is based not alone on size: there is also an independence of location. This, owing to the spherical form of the earth, tends to be neutralized by the independence based upon large area. The larger a land-mass is, the nearer it approaches to others. Eurasia, the largest of all the continents, comes into close proximity and therefore close relations with Africa, North America, and even Australia; whereas Australia is at once the smallest and the most isolated of the continents. The remote oceanic islands of the Atlantic Ocean, measuring only a few square

miles in area, have a location so independent of other inhabited lands, that before the period of the great discoveries they had never appeared on the horizon of man.

The case of Asia.

Asia's size and central location to the other continents were formerly taken as an argument for its correspondingly significant position in the creation and history of man. Its central location is reflected in the hypothesis of the Asiatic origin of the Indo-European linguistic group of peoples; and though the theory has been justly called into question, these peoples have undoubtedly been subjected to Asiatic influences. The same thing is true of the native American race, both as to Asiatic origin and influences; because the approximation of Siberia to Alaska is too close to exclude human relations between the two continents. The Malays, too, were probably sprung from the soil of southeastern Asia and spread thence over their close-packed Archipelago. Even the native Australians betray a Malayan and therefore Asiatic element in their composition,[3] while the same element can be traced yet more distinctly in the widely scattered Polynesians and the Hovas of Madagascar. This radiation of races seems to reflect Asia's location at the core of the land-masses. Yet the capacity to form such centers of ethnic distribution is not necessarily limited to the largest continents; history teaches us that small areas which have early achieved a relatively dense population are prone to scatter far their seeds of nations.

Location of hemispheres and ethnic kinship.

The continents harbor the most widely different races where they are farthest apart; where they converge most nearly, they show the closest ethnic kinships. The same principle becomes apparent in their plants and animals. The distribution of the land-masses over the earth is conspicuous for their convergence in the north and divergence in long peninsular forms toward the south. The contrasted grouping is reflected in both the lower animals and the peoples inhabiting these respectively vicinal and remote lands. Only where North America and Eurasia stretch out arms to one another around the polar sea do Eastern and Western Hemisphere show a community of mammalian forms. These are all strictly Arctic animals, such as the reindeer, elk, Arctic fox, glutton

and ermine.[4] This is the Boreal sub-region of the Holoarctic zoological realm, characterized by a very homogeneous and very limited fauna.[5] In contrast, the portion of the hemispheres lying south of the Tropic of Cancer is divided into four distinct zoological realms, corresponding to Central and South America, Africa south of Sahara, the two Indian peninsulas with the adjacent islands, and Australia.[6] But when we consider the continental extremities projecting beyond the Tropic of Capricorn, where geographic divergence reaches a climax, we find their faunas and floras utterly dissimilar, despite the fact that climate and physical conditions are very similar.[7] We find also widely divergent races in the southern sections of Africa, Australia or Tasmania and South America, while Arctic Eurasia and America come as near meeting ethnically as they do geographically. Here and here only both Eastern and Western Hemisphere show a strong affinity of race. The Eskimo, long classed as Mongoloid, are now regarded as an aberrant variety of the American race, owing to their narrow headform and linguistic affinity; though in Alaska even their headform closely approximates the Mongoloid Siberian type.[8] But in stature, color, oblique eyes, broad flat face, and high cheek bones, in his temperament and character, artistic productions and some aspects of his culture, he groups with the Asiatic Hyperboreans across the narrow sixty miles of water forming Bering Strait.[9] In the northern part of the earth's land area, the distribution of floras, faunas, and races shows interdependence, intercourse; in the southern, separation, isolation.

Continental convergence and ethnic kinship.

What is true where the hemispheres come together is true also where continents converge. The core of the Old World is found in the Mediterranean basin where Europe, Asia and Africa form a close circle of lands and where they are inhabited by the one white Mediterranean race. Contrast their racial unity about this common center with the extremes of ethnic divergence in their remote peripheries, where Teutons, Mongols, Malays and Negroes differ widely from the Mediterranean stock and from each other. Eastern Australia represents the ethnic antipodes of western Asia, in harmony with the great dividing distance between them, but the sides of

these continents facing each other across the bridge of the Sunda Islands are sparsely strewn with a common Malay element.

Africa's location.

Africa's early development was never helped by the fact that the continent lay between Asia and South America. It was subjected to strong and persistent Asiatic influences, but apparently to no native American ones. From that far-off trans-Atlantic shore came no signs of life. Africa appears in history as an appendage of Asia, a cultural peninsula of the larger continent. This was due not only to the Suez Isthmus and the narrowness of the Red Sea rift, but to its one-sided invasion by Asiatic races and trade from the east, while the western side of the continent lay buried in sleep, unstirred by any voice from the silent shores of America. Semitic influences, in successive waves, spread over the Dark Continent as far as Morocco, the Senegal, Niger, Lake Chad, Nyanza, Tanganyika and Nyassa, and gave it such light as it had before the 16th century. Only after the Atlantic gulf was finally crossed did influences from the American side of the ocean begin to impinge upon the West African coast, first in the form of the slave and rum trade, then in the more humane aspect of the Liberian colony. But with the full development of the Atlantic period in history, we see all kinds of Atlantic influences, though chiefly from the Atlantic states of Europe, penetrating eastward into the heart of Africa, and there meeting other commercial and political activities pressing inland from the Indian Ocean.

The Atlantic abyss.

The long Atlantic rift between the Eastern and Western Hemispheres, which was such a potent factor in the primitive retardation of Africa is, from the standpoint of anthropogeography, the most important feature in the distribution of the land-masses over the globe. Not till the discovery of America bridged this abyss did the known world become a girdle round the earth. Except the Norse ventures to the American continent by way of Iceland and Greenland between 1000 and 1347, no account of pre-Columbian intercourse between the two shores of the Atlantic has ever been substantiated. Columbus found the opposite land unfamiliar in race as in culture. He described the people as neither

whites nor blacks, the two ethnic types which he knew on the eastern side of the Atlantic abyss. He and his successors found in the Americas only a Stone Age culture, a stage already outgrown by Europe and Africa. These continents from Lapland to the Hottentot country were using iron. Prior to the voyage of the great Genoese, Europe gave nothing to America and received nothing from it, except the Gulf Stream's scanty cargo of driftwood stranded on bleak Icelandic shores. The Tertiary land-bridge across the North Atlantic between Norway and Greenland may possibly have guided a pre-Caucasic migration to America and given that continent part of its aboriginal population.[10] However, no trace of any European stock remains.

Atlantic islands uninhabited.

The collapse of the bridge at the close of the Glacial Epoch left the Atlantic abyss effectually dividing the two hemispheres. Its islands, few and far between, were helpless to maintain intercourse between the opposite shores; this is proven by the fact that all of them from Greenland to Tristan da Cunha, excepting only the Canaries, were uninhabited at the time of their discovery. History records when the first bold voyagers came upon them in that unmarked waste of waters, and gave them their first occupants. The political upheavals of Norway in King Harfagr's time (872) sent to the Faroes and Iceland their first settlers, though these islands were previously known to the Celts of Ireland. The Norse colonists who went to Greenland in the year 1000 seem to have been the first regular settlers on those inhospitable coasts. They found no native inhabitants, but numerous abandoned dwellings, fragments of boats and stone implements,[11] which doubtless recorded the intermittent voyages thither of the Eskimo, preliminary to permanent occupation. The Scandinavians did not encounter natives on the island till the 12th century, when Greenland probably received its first Eskimo immigration.[12]

Geographical character of the Pacific.

While the Atlantic thus formed a long north-and-south rift across the inhabited world at the period of the great discoveries, the Pacific, strewn with islands and land-rimmed at its northern extremity by the peninsulas of Alaska and eastern Siberia, spread a nebula of population from the dense

centers of Asia across to the outskirts of America. The general Mongoloid character of the American Indians as a race, the stronger Asiatic stamp of the Western Eskimo, the unmistakeable ethnic and cultural affinities of the Northwest Coast tribes both with southern Polynesians and Asiatics,[13] all point to America as the great eastern wing of the Mongoloid or Asiatic area, and therefore as the true Orient of the world.

Geographic conditions have made this possible or even probable. The winds and currents of the North Pacific set from Japan straight toward the American coast. Junks blown out to sea from China or Japan have been carried by the Kuro Siwo and the prevailing westerlies across the Pacific to our continent. There is record of a hundred instances of this occurence.[14]

Pacific affinities of North American Indians.

The broken bridge across Bering Strait formed by East Cape, Cape Prince of Wales and the Diomede Islands between, and further south the natural causeway of the Commander and Aleutian Islands leading from the peninsula of Kamchatka to that of Unalaska, have facilitated intercourse between Asia and America.[15] Justin Winsor says, "There is hardly a stronger demonstration of such connection between the two continents than the physical resemblances of the peoples now living on opposite sides of the Pacific Ocean in these upper latitudes."[16] This resemblance is by no means confined to the Eskimo and Chukches, who have exchanged colonists across Bering Sea. Recent investigations have revealed a wider kinship. The population of northern Siberia speaks in general Ural-Altaic languages, but it includes a few scattered tribes whose singular speech excludes them from this linguistic group, and who have therefore been placed by ethnologists in a distinct class called "paleasiatics" or "hyperboreans." This class is composed of the Ostyak and Kot on the Yenisei River, the Gilyak and Ainos at the mouth of the Amur and on the Kurile, Sakhalin and Yezo islands, the Kamchadal and Koryak of Kamchatka, and the Chukches and Yukaghir of extreme northeastern Siberia. As far back as 1850, the eminent philologist Robert Latham noted a marked linguistic agreement, both in structure and verbal

affinity, between our Northwest Coast tribes and the peoples of the islands and peninsulas fringing northeastern Asia. "Koriak is notably American," he said.[17] The recent Jesup Expedition to the Northwest Coast of America and the nearby coast of Asia investigated the Koryak, to determine whether in the past there had been any connection between the cultures and ethnic types of the Old and New World. These investigations have proved beyond doubt a kinship of culture, attributable either to a remote common origin or to former contact, long and close, between these isolated Siberian tribes and the American aborigines. They show that the Koryak are one of the Asiatic tribes standing nearest to the northwestern American Indian.[18] [See map page 103.]

Polynesian affinities.

W. H. Dall finds the inhabitants of the Pacific slope of North America conspicuously allied with Oceanica in cultural achievements, whose origin he therefore assigns to that vast congeries of islands stretching from Asia toward South America in latitude 25° south. These islands, closely clustered as far as the Paumota group, straggle along with widening spaces between, through Easter Isle, which carries the indestructible memorials of a strange civilization, through Sala-y-Gomez, San Felix, and St. Ambrose almost to the threshold of the Peruvian coast. It is to be noted that these islands lie just outside the westward-bearing Equatorial Current and trade-winds, on the margin of the South Pacific anticyclonic winds and a southern current which sets towards the Peruvian coast.[19] A more probable avenue for the introduction of these Polynesian or Malayan elements of culture is found in O. T. Mason's theory, that primitive mariners of the southwestern Pacific, led into migration by the eternal food quest, may have skirted the seaboard of East Asia and Northwest America, passing along a great-circle route through the succession of marginal seas and archipelagoes to various ports of entry on the Pacific front of America. Such a route, favored by the prevailing marine currents and winds from the southwest, and used repeatedly during long periods of time, might have introduced trans-Pacific elements of race and culture into the western side of America.[20]

The real Orient of the world.

Moreover, primitive America resembled Oceanica and

northern Asia in its ignorance of iron, in its Stone Age civilization, and its retarded social and political development. Such affinities as it shows were predominantly Pacific or trans-Pacific.[21] On its Atlantic side, it stood out in striking contrast to the contemporaneous civilizations and races in Europe and Africa; this was its unneighbored shore, lying on the eastern margin of that broad zone of habitation which stretched hence westward on and on around the world, to the outermost capes of Europe and Africa. The Atlantic abyss formed the single gap in this encircling belt of population, to which Columbus at last affixed the clasp. The Atlantic face of the Americas formed therefore the drowsy unstirred Orient of the inhabited world, which westward developed growing activity—dreaming a civilization in Mexico and Peru, roused to artistic and maritime achievement in Oceanica and the Malay Archipelago, to permanent state-making and real cultural development in Asia, and attaining the highest civilization at last in western Europe. There was the sunset margin of the inhabited world, the area of achievement, the adult Occident, facing across the dividing ocean that infant Orient beyond. Here the Old World, the full-grown world, had accumulated in Columbus' time the matured forces of a hemisphere; it was searching for some outlet across the shoreless distances of the Atlantic, waiting for some call from its voiceless beyond.

The Atlantic abyss in historic movements of peoples.

This deep, unbridged chasm of the Atlantic, closed only four hundred years ago, must be taken into account in all investigations of the geographical distribution of races, whether in prehistoric or historic times. The influences of those ages when it formed an impassable gulf are still operative in directing the movements of the peoples to-day inhabiting its shores, because that barrier maintained the continents of America as a vast territorial reserve, sparsely inhabited by a Stone Age people, and affording a fresh field for the superior, accumulated energies of Europe.

Races and continents.

Australia and the double continent of America show each the coincidence of an ethnic realm with an isolated continent. In contrast, when we come to the Old World triad of Europe, Asia and Africa, we find three races, to be sure,

but races whose geographical distribution ignores the boundaries of the continents. The White race belongs to all three, and from time immemorial has made the central basin of the Mediterranean the white man's sea. The Mongolian, though primarily at home in Asia, stretches along the coast of the Arctic Ocean to the Atlantic shores of Norway, and in historical times has penetrated up the Danube to the foot of the Alps. Nor was the Negroid stock confined to Africa, though Africa has always been its geographical core. The Indian Peninsula and Malay Archipelago, once peopled by a primitive Negroid race, but now harboring only remnants of them in the Deccan, Malacca, the Philippines and elsewhere, bridge the distance to the other great Negroid center in Melanesia and the derivative or secondary Negroid area of Australia.[22] The Negroid race belongs essentially to the long southern land pendants of the Eastern Hemisphere; and wherever it has bordered on the lighter northern stocks, it has drawn a typical boundary zone of mingled tints which never diverges far from the Equator, from the Atlantic shores of the Sudan to Pacific Fiji.[23] [See map page 105.]

The effort of the old ethnology, as represented by Blumenbach, to make a five-fold division of the races in agreement with the five continents was a mistake. To distinguish between the continents is one thing and to distinguish between the races is another. Neither bio-geography nor anthropo-geography can adopt the continents as geographical provinces, although floras, faunas and races the world over give evidence of partial or temporary restriction to a certain continent, whence they have overflowed to other lands. A ground-plan for the geographical classification of races is to be found, as Tylor says, in the fact that they are not found scattered indiscriminately over the earth's surface, but that certain races belong to certain regions, in whose peculiar environment they have developed their type, and whence they have spread to other lands, undergoing modifications from race intermixture and successive changes of environment on the way.[24]

Contrast of the northern and southern continents.

From this general law of race movements it follows that certain groups of land-masses, favored by location and large

area, play a great imperial rôle, holding other lands as appanages. The Eastern Hemisphere, as we have seen, enjoys this advantage over the Western. Still more the Northern Hemisphere, blessed with an abundance of land and a predominant Temperate Zone location, is able to lord it over the Southern, so insular in its poverty of land. The history of the Northern Hemisphere is marked by far-reaching historical influences and wide control; that of the Southern, by detachment, aloofness and impotence, due to the small area and isolation of its land-masses. A subordinate rôle is its fate. Australia will always follow in the train of Eurasia, whence alone it has derived its incentives and means of progress. Neither the southern half of Africa nor South America has ever in historical times struck out a road to advancement unaided by its northern neighbors. Primitive South America developed the only independent civilization that ever blossomed in the Southern Hemisphere, but the Peruvian achievements in progress were inferior to those of Mexico and Central America.[25]

Isolation of the southern continents.

This subordination of the southern continents is partly due to the fact that they have only one side of contact or neighborhood with any other land, that is, on the north; yet even here the contact is not close. In Australia the medium of communication is a long bridge of islands; in America, a winding island chain and a mountainous isthmus; in Africa, a broad zone of desert dividing the Mediterranean or Eurasian from the tropical and Negroid part of the continent. Intercourse was not easy, and produced clear effects only in the case of Africa. Enlightenment filtering in here was sadly dimmed as it spread. Moreover it was delayed till the introduction from Asia of the horse and camel, which were not native to Africa, and which, as Ratzel points out, alone made possible the long journey across the Sahara. The opposite or peninsular sides, running out as great spurs from the compacter land-masses of the north, look southward into vacant wastes of water, find no neighbors in those Antarctic seas. Owing to this unfavorable location on the edge of things, they were historically dead until four centuries ago, when oceanic navigation opened up the great sea route of the Southern

Hemisphere, and for the first time included them in the world's circle of communication. But even when lifted by the ensuing Europeanizing process, they only emphasize the fundamental dependence of the Southern Hemisphere upon the superior geographical endowments of the Northern.

Effect of continental structure upon historical development.

The build of the land-masses influences fundamentally the movements and hence the development of the races who inhabit them. A simple continental structure gives to those movements a few simple features and a wide monotonous distribution which checks differentiation. A manifold, complex build, varied in relief and ragged in contour, breaks up the moving streams of peoples, turns each branch into a different channel, lends it a distinctive character through isolation, finally brings it up in a *cul de sac* formed by a peninsula or mountain-rimmed basin, where further movement is checked and the process of local individualization begins. Therefore great simplicity of continental build may result in historical poverty, as in the flat quadrangle of European Russia, the level plateau of Africa, and the smooth Atlantic slope of North America, with its neatly trimmed outline. Complexity, abounding in contrasted environments, tends to produce a varied wealth of historical development. Africa lies on the surface of the ocean, a huge torso of a continent, headless, memberless, inert. Here is no diversity of outward form, no contrast of zonal location, no fructifying variety of geographic conditions. Humanity has forgotten to grow in its stationary soil. Only where the Suez Isthmus formed an umbilical cord uniting ancient Egypt to the mother continent of Asia was Africa vitalized by the pulse of another life. European influences penetrated little beyond the northern coast.

Asia, on the other hand, radiating great peninsulas, festooned with islands, supporting the vast corrugations of its highlands and lowlands, its snow-capped mountains and steaming valleys, stretching from the Equator through all the zones to the ice-blocked shores of the Arctic, knowing drought and deluge, tundra waste and teeming jungle, has offered the manifold environment and segregated areas for individualized civilizations, which have produced such far-

reaching historical results. The same fact is true of Europe, and that in an intensified degree. Here a complex development of mountains and highlands built on diverse axes, peninsulas which comprise 27 per cent. and islands which comprise nearly 8 per cent. of the total area,[26] vast thalassic inlets cleaving the continent to the core, have provided an abundance of those naturally defined regions which serve as cradles of civilization and, reacting upon the continent as a whole, endow it with lasting historical significance.[27] Even Strabo saw this. He begins his description of the inhabited world with Europe, because, as he says, it has such a "polymorphous formation" and is the region most favorable to the mental and social ennoblement of man.[28]

Structure of North and South America.

In North and South America, great simplicity of continental build gave rise to a corresponding simplicity of native ethnic and cultural condition. There is only one marked contrast throughout the length of this double continent, that between its Atlantic and Pacific slopes. On the Atlantic side of the Cordilleras, a vast trough extends through both land-masses from the Arctic Ocean to Patagonia; this has given to migration in each a longitudinal direction and therefore constantly tended to nullify the diversities arising from contrasted zonal conditions. On the Pacific side of North America, there has been an unmistakeable migration southward along the accessible coast from Alaska to the Columbia River, and down the great intermontane valleys of the western highlands from the Great Basin to Honduras;[29] while South America shows the same meridional movement for 2,000 miles along the Pacific coast and longitudinal valleys of the Andes system. There was little encouragement to cut across the grain of the continents. The eastern range of the Cordilleras drew in general a dividing line between the eastern and western tribes.[30] Though Athapascans from the east overstepped it at a few points in North America, the Great Divide has served effectually to isolate the two groups from one another and to draw that line of linguistic cleavage which Major Powell has set down in his map of Indian linguistic stocks. Consequently, Americanists recognize a distinct resemblance among the members

of the North Atlantic group of Indians, as among those of the South Atlantic group; but they note an equally distinct contrast between each of them and its corresponding Pacific group. Nor is this contrast superficial; it extends to physical traits, temperament and culture,[31] and appears in the use of the vigesimal system of enumeration in primitive Mexico, Central America, among the Tlingits of the Northwest coast and the Eskimo as also among the Chukches and Ainus of Asia, while in the Atlantic section of North America the decimal system, with one doubtful exception, was alone in use.[32]

Cultural superiority of Pacific slope Indians.

To the anthropo-geographer, the significant fact is that all the higher phases of native civilization are confined to the Pacific slope group of Indians, which includes the Mexican and Isthmian tribes. From the elongated center of advanced culture stretching from the Bolivian highlands northward to the Anahuac Plateau, the same type shades off by easy transitions through northern Mexico and the Pueblo country, vanishes among the lower intrusive stocks of Oregon and California, only to reappear among the Haidas and Tlingits of British Columbia and Alaska, whose cultural achievements show affinity to those of the Mayas in Yucatan.[33] Dall found certain distinguishing customs or characteristics spread north and south along the western slope of the continent in a natural geographical line of migration. They included labretifery, tattooing the chin of adult women, certain uses of masks, a certain style of conventionalizing natural objects, the use of conventional signs as hieroglyphics, a peculiar facility in carving wood and stone, a similarity of angular designs on their pottery and basketry, and of artistic representations connected with their common religious or mythological ideas. Many singular forms of carvings and the method of superimposing figures of animals one upon another in their totem poles are found from Alaska to Panama, except in California. These distinguishing features of an incipient culture are found nowhere else in North America, even sporadically. Dall therefore concludes that "they have been impressed upon the American aboriginal world from without," and on the ground of affinities, attributes their origin to Oceanica.[34]

Cyrus Thomas, on the basis of the character and distribution of the archeological remains in North America, concurs in this opinion. He finds that these remains fall into two classes, one east of the Rocky Mountain watershed and the other west. "When those of the Pacific slope as a whole are compared with those of the Atlantic slope, there is a dissimilarity which marks them as the products of different races or as the result of different race influences." He emphasizes the resemblance of the customs, arts and archeological remains of the west coast to those of the opposite shores and islands of the Pacific, and notes the lack of any resemblance to those of the Atlantic; and finally leans to the conclusion that the continent was peopled from two sources, one incoming stream distributing itself over the Atlantic slope, and the other over the Pacific, the two becoming gradually fused into a comparatively homogeneous race by long continental isolation. Yet these two sources may not necessarily include a trans-Atlantic origin for one of the contributing streams; ethnic evidence is against such a supposition, because the characteristics of the American race and of the archeological remains point exclusively to affinity with the people of the Pacific.[35] John Edward Payne also reaches the same conclusion, though on other grounds.[36]

Lack of segregated districts.

The one strong segregating feature in primitive America was the Cordilleras, which held east and west apart. In the natural pockets formed by the high intermontane valleys of the Andes and the Anahuac Plateau, and in the constricted isthmian region, the continent afforded a few secluded localities where civilization found favorable conditions of development. But in general, the paucity of large coast articulations, and the adverse polar or subpolar location of most of these, the situation of the large tropical islands along that barren Atlantic abyss, and the lack of a broken or varied relief, have prevented the Americas from developing numerous local centers of civilization, which might eventually have lifted the cultural status of the continents.[37]

Coast articulations of continents.

It is necessary to distinguish two general classes of continental articulations; first, marginal dependences, like the fringe of European peninsulas and islands, resulting from a

deeply serrated contour; and second, surface subdivisions of the interior, resulting from differences of relief or defined often by enclosing mountains or deserts, like the Tibetan Plateau, the Basin of Bohemia, the Po River trough, or the sand-rimmed valley of the Nile. The first class is by far the more important, because of the intense historical activity which results from the vitalizing contact with the sea. But in considering coast articulations, anthropo-geography is led astray unless it discriminates between these on the basis of size and location. Without stopping to discuss the obvious results of a contrasted zonal location, such as that between Labrador and Yucatan, the Kola Peninsula and Spain, it is necessary to keep in mind always the effect of vicinal location. An outlying coastal dependency like Ireland has had its history impoverished by excessive isolation, in contrast to the richer development of England, Jutland, and Zealand in the same latitude, because these have profited from the closer neighborhood of other peripheral regions. So from ancient times, Greece has had a similar advantage over the Crimea, the Tunisian Peninsula of North Africa over Spain, the Cotentin Peninsula of France over Brittany, and Kent over Cornwall or Caithness in Great Britain.

Importance of size in continental articulations.

Articulations on a vast scale, like the southern peninsulas of Asia, produce quite different cultural and historical effects from small physical sub-divisions, like the fiord promontories and "skerries" of Norway and southern Alaska, or the finger peninsulas of the Peloponnesus. The significant difference lies in the degree of isolation which the two types yield. Large continental dependencies of the Asiatic class resemble small continents in their power to segregate; while overgrown capes like ancient Attica and Argolis or the more bulky Peloponnesus have their exclusiveness tempered by the mediating power of the small marine inlets between them. Small articulations, by making a coast accessible, tend to counteract the excessive isolation of a large articulation. They themselves develop in their people only minor or inner differentiations, which serve to enrich the life of the island or peninsula as a whole, but do not invade its essential unity. The contrast in the history of Hellas and the Peloponnesus

was due largely to their separation from one another; yet neither was able to make of its people anything but Greeks. Wales and Cornwall show in English history the same contrast and the same underlying unity.

Historical contrast of large and small peninsulas.

In discussing continental articulations, therefore, it makes a great difference whether we draw our deductions from small projections of the coast, like Wales, the Peloponnesus, Brittany and the Crimea, whose areas range from 7442 to 10,023 square miles (19,082 to 25,700 square kilometers); or the four Mediterranean peninsulas, which range in size from the 58,110 square miles (149,000 square kilometers) of the Apennine Peninsula to the 197,600 square miles (506,600 square kilometers) of Asia Minor and the 227,700 square miles (584,000 square kilometers) of the Iberian; or the vast continental alcoves of southern Asia, like Farther India with its 650,000 square miles (1,667,000 square kilometers), Hither India with 814,320 square miles (2,088,000 square kilometers) and Arabia with 1,064,700 square miles (2,730,000 square kilometers).[38] The fact that the large compound peninsula of western Europe which comprises Spain, Portugal, France, Jutland, Belgium, Holland, Switzerland, Italy and western Germany, and has its base in the stricture between the Adriatic and the Baltic, is about the size of peninsular India, suggests how profound may be the difference in geographic effects between large and small peripheral divisions. The three huge extremities which Asia thrusts forward into the Indian Ocean are geographical entities, which in point of size and individualization rank just below the continents; and in relation to the solid mass of Central Asia, they have exhibited in many respects an aloofness and self-sufficiency, that have resulted in an historical divergence approximating that of the several continents. India, which has more productive territory than Australia and a population not much smaller than that of Europe, becomes to the administrators of its government "the Continent of India," as it is regularly termed in the Statistical Atlas published at Calcutta. Farther India has in the long-drawn pendant of Malacca a sub-peninsula half as large again as Italy. The Deccan has in Ceylon an insular dependency the size of Tas-

mania. The whole scale is continental. It appears again somewhat diminished, in the largest articulations of Europe, in Scandinavia, the British Isles, the Iberian and Balkan peninsulas. This continental scale stamps also the anthropogeography of such large individualized fields. They are big enough for each to comprise one or even several nations, and isolated enough to keep their historical processes for long periods at a time to a certain extent detached from those of their respective continents.

Peninsular conditions most favorable to historical development.

The most favorable conditions for historical development obtain where the two classes of marginal articulation are combined, and where they occur in groups, as we find them in the Mediterranean and the North Sea-Baltic basin. Here the smaller indentations multiply contact with the sea, and provide the harbors, bays and breakwaters of capes and promontories which make the coast accessible. The larger articulations, by their close grouping, break up the sea into the minor thalassic basins which encourage navigation, and thus insure the exchange of their respective cultural achievements. In other words, such conditions present the preeminent advantages of vicinal location around an enclosed sea.

The enormous articulations of southern Asia suffer from their paucity of small indentations, all the more because of their vast size and sub-tropical location. The Grecian type of peninsula, with its broken shoreline, finds here its large-scale homologue only in Farther India, to which the Sunda Islands have played in history the part of a gigantic Cyclades. The European type of articulation is found only about the Yellow-Japan Sea, where the island of Hondo and the peninsulas of Shangtung and Korea reproduce approximately the proportions of Great Britain, Jutland and Italy respectively. Arabia and India, like the angular shoulder of Africa which protrudes into the Indian Ocean, measure an imposing length of coastline, but this length shrinks in comparison with the vast area of the peninsulas. The contour of a peninsula is like the surface of the brain: in both it is convolutions that count. Southern Asia has had lobes enough but too few convolutions. For this reason, the

northern Indian Ocean, despite its exceptional location as the eastward extension of the Mediterranean route to the Orient, found its development constantly arrested till the advent of European navigators.

Length of coastline.

Although the peripheral articulations of a continent differ anthropo-geographically according to their size, their zonal and vicinal location, yet large and small, arctic and tropical, are grouped indiscriminately together in the figures that state the length of coastlines. For this reason, statistics of continental coastlines have little value. For instance, the fact that Eurasia has 67,000 miles (108,000 kilometers) and North America 46,500 miles (75,000 kilometers) of contact with the ocean is not illuminating; these figures do not reveal the fact that the former has its greatest coastal length on its tropical and sub-tropical side, while the latter continent has wasted inlets and islands innumerable in the long, bleak stretch from Newfoundland poleward around to Bering Sea.

The continental base of peninsulas.

Peninsulas are accessible from the sea according to the configuration of their coasts, but from their hinterland, according to the length and nature of their connection with the same. This determines the degree of their isolation from the land-mass. If they hang from the continent by a frayed string, as does the Peloponnesus, Crimea, Malacca, Indian Gutjerat, and Nova Scotia, they are segregated from the life of the mainland almost as completely as if they were islands. The same effects follow where the base of a peninsula is defined by a high mountain barrier, as in all the Mediterranean peninsulas, in the two Indias, and in Korea; or by a desert like that which scantily links Arabia to Egypt, Syria and Mesopotamia; or by a blur of swamps and lakes such as half detaches Scandinavia, Courland, Estland and Finland from Russia.

Held to their continents by bonds that often fail to bind, subjected by their outward-facing peripheral location to every centrifugal force, feeling only slightly the pull of the great central mass behind, peninsulas are often further detached economically and historically by their own contrasted local conditions. A sharp transition in geological formation and therefore in soil, a difference of climate, rainfall, drainage

system, of flora or fauna, serve greatly to emphasize the lack of community of interests with the continental interior, and therefore produce an inevitable diversity of historical development.[39] Hence, many peninsulas insulate their people as completely as islands. It is hard to say whether the Pyrenean peninsula or Sicily, Scandinavia or Great Britain, has held itself more aloof from the political history of remaining Europe; whether Korea is not more entitled to its name of the Hermit Kingdom than island Japan could ever be; whether the Peloponnesus or Euboea was more intimately associated with the radiant life of ancient Hellas. These questions lead to another, namely, whether a high mountain wall like the Pyrenees, or a narrow strait like that of Messina is the more effective geographical boundary.

Continental base a zone of transition.

Peninsulas not infrequently gain in breadth as they approach the continent; here they tend to abate their distinctive character as lobes of the mainland, together with the ethnic and historical marks of isolation. Here they form a doubtful boundary zone of mingled continental and peninsular development. Such peninsulas fall naturally, therefore, into a continental and a peninsular section, and reveal this segmentation in the differentiated history of the two portions. That great military geographer Napoleon distinguished the Italy of the Po basin as *Italie continentale*, and the Apennine section as *Presqu'ile*. Not only is the former broader, but, expanding like a tree trunk near the ground, it sends its roots well back into the massive interior of the continent; it is dominated more by the Alps than by the Apennines; it contains a lowland and a river of continental proportions, for which there is no space on the long, narrow spur of southern Italy. If its geographical character approximates that of the mainland, so does its ethnic and historical. The Po basin is a well defined area of race characterization, in which influences have made for intermixture. South of the crest of the Apennines the Italian language in its purity begins, in contrast to the Gallo-Italian of the north. This mountain ridge has also held apart the dark, short dolichocephalic stock of the Mediterranean race from the fairer, taller, broad-headed Celts, who have moved down into the

Po basin from the Alps, and the Germans and Illyrians who have entered it from the northeast.[40] Northern Italy is therefore allied ethnically, as it has often been united politically, to the neighboring countries abutting upon the Alps, so that it has experienced only in a partial degree that detachment which has stamped the history of the Apennine section.

Historical contrast between base and extremity.

The Balkan Peninsula tells much the same story of contrasted geographic conditions and development in its continental and peninsular sections. Greece proper, in ancient as in modern times, reached its northern confines where the peninsula suddenly widens its base through Macedonia and Thrace. In this narrow southern section to-day, especially in isolated Peloponnesus, Attica, and the high-walled garden of Thessaly, are found people of the pure, long-headed, Hellenic type, and here the Greek language prevails.[41] But that broad and alien north, long excluded from the Amphictyonic Council and a stranger to Aegean culture in classical times, is occupied to-day by a congeries of Slavs, who form a southwestern spur of the Slav stock covering eastern Europe. Its political history shows how often it has been made a Danubian or continental state,—by Alexander of Macedon, by the Romans, Bulgarians, and Ottoman Turks,[42] as it may be some day by Russia; and also how often its large and compact form has enabled it to dominate the tapering peninsular section to the south.

In the same way, the vast Ganges and Indus basins, which constitute the continental portion of India, have received various Tibetan, Scythian, Aryan, Pathan, and Mongol-Tartar ingredients from Central Asia; and by reason of the dense populations supported by these fruitful river plains, it has been able to dominate politically, religiously and culturally the protruding triangle of the Deccan. [See maps pages 8 and 102.] The continental side of Arabia, the Mesopotamian valley which ties the peninsula to the highlands of Persia and Armenia, has received into its Semitic stock constant infiltrations of Turanian and Aryan peoples from the core of Asia. This process has been going on from the ancient Elamite and Persian conquests of Mesopotamia down

to the Ottoman invasion and the present periodic visits of Kurdish shepherds to the pastures of the upper Tigris.[43] Here we have the same contrast of geographic conditions as in Italy and India, a wide, populous alluvial plain occupying the continental section of the peninsula, and a less attractive highland or mountainous region in the outlying spur of land.

Continental base a scene of invasion and war.

These continental sections of peninsulas become therefore strongly marked as areas of ethnic characterization and differentiated historical development. Their threshold location, by reason of which they first catch any outward migration from the core of the continent, and their fertility, which serves as a perennial lure to new comers, whether peaceful or warlike, combine to give them intense historical activity. They catch the come and go between their wide hinterland and the projection of land beyond, the stimulus of new arrivals and fresh blood. But tragedy too is theirs. The Po Valley has been called "the cockpit of Europe." Even the little Eider, which marks the base of Jutland, has been the scene of war between Danes and Germans since the tenth century.[44] The Indus Valley has again and again felt the shock of conflict with invading hordes from the central highlands, and witnessed the establishment of a succession of empires. Peace at the gates of the Balkan Peninsula has never been of long duration, and the postern door of Korea has been stormed often enough.

Peninsular extremities as areas of isolation.

In contrast to these continental sections which stand in contact with the solid land-mass behind, the extremities of the peninsulas are areas of isolation and therefore generally of ethnic unity. They often represent the last stand of displaced people pressed outward into these narrow quarters by expanding races in their rear. The vast triangle of the Deccan, which forms the essentially peninsular part of India, is occupied, except in the more exposed northwest corner, by the Dravidian race which once occupied all India, and afterward was pushed southward by the influx of more energetic peoples.[45] Here they have preserved their speech and nationality unmixed and live in almost primitive simplicity.[46] In the peninsular parts of Great Britain, in northern Scotland, Wales and Cornwall, we find people of

Celtic speech brought to bay on these remote spurs of the land, affiliating little with the varied folk which occupied the continental side of the island, and resisting conquest to the last.[47] The mountainous peninsula of western Connaught in Ireland has been the rocky nucleus of the largest Celtic-speaking community in the island.[48] Brittany, with a similar location, became the last refuge of Celtic speech on the mainland of Europe,[49] the seat of resistance to Norman and later to English conquest, finally the stronghold of conservatism in the French Revolution.

Ethnic unity of peninsulas.

The northern wall of the Apennines and the outpost barrier of the Alps have combined to protect peninsular Italy from extensive ethnic infusions from the direction of the continent. This portion of the country shows therefore, as the anthropological maps attest, a striking uniformity of race. It has been a melting-pot in which foreign elements, filtering through the breaches of the Apennines or along the southern coast, have been fused into the general population under the isolating and cohesive influences of a peninsular environment.[50] The population of the Iberian Peninsula is even more unified, probably the most homogeneous in Europe. Here the long-headed Mediterranean race is found in the same purity as in island Corsica and Sardinia.[51] Spain's short line of contact with France and its sharp separation by the unbroken wall of the Pyrenees robs the peninsula of any distinctly continental section, and consequently of any transitional area of race and culture; hence the unity of Spain as opposed to that twofold balanced diversity which we find in Italy and India. The Balkan Peninsula, on the other hand, owing to the great predominance of its continental section and the confused relief of the country, has not protected its distinctively peninsular or Greek section from the southward migrations of Slavs, Albanians, Wallachians, and other continental peoples.[52] It has been like a big funnel with a small mouth; the pressure from above has been very great. Hellas and even the Peloponnesus have had their peninsularity impaired and their race mixed, owing to the predominant continental section to the north.

Peninsulas as intermediaries.

Peninsulas, so far as they project from their continents,

are areas of isolation; but so far as they extend also toward some land beyond, they become intermediaries. The isolating and intermediary aspects can be traced in the anthropo-geographical effects of every peninsula, even those which, like Brittany and Cornwall, project into the long uncharted waste of the Atlantic. In the order of historical development, a peninsula first isolates, until in its secluded environment it has molded a mature, independent people; then, as that people outgrows its narrow territory, the peninsula becomes a favorable base for maritime expansion to distant lands, or becomes a natural avenue for numerous reciprocal relations with neighboring lands beyond. Korea was the bridge for Mongolian migration from continental Asia to the Japan islands, and for the passage thither of Chinese culture, whether intellectual, esthetic, industrial or religious.[53] It has been the one country conspicuous in the foreign history of Japan. Conquered by the island empire in 1592, it paid tribute for nearly three centuries and yielded to its foreign master the southeastern port of Fusan, the Calais of Korea.[54] Since the treaty of Portsmouth in 1905 made it subject to Japan, it has become the avenue of Japanese expansion to the mainland and the unwilling recipient of the modern civilization thrust upon it by these English of the East. In like manner the Pyrenean peninsula has always been the intermediary between Europe and northwest Africa. Its population, as well as its flora and fauna, group with those of the southern continent. It has served as transit land between north and south for the Carthaginians, Vandals and Saracens; and in modern times it has maintained its character as a link by the Portuguese occupation of the Tangiers peninsula in the fifteenth century,[55] and the Spanish possession of Ceuta and various other points along the Moroccan coast from the year 709 A. D. to the present.[56]

Peninsulas of intercontinental location.

This rôle of intermediary is inevitably thrust upon all peninsulas which, like Spain, Italy, Greece, Asia Minor, Arabia, Farther India, Malacca, Chukchian Siberia, and Alaska, occupy an intercontinental location. Arabia especially in its climate, flora, races and history shows the haul and

pull now of Asia, now of Africa. From it Asiatic influences have spread over Africa to Morocco and the Niger River on the west, and to Zanzibar on the south, permeated Abyssinia, and penetrated to the great Equatorial Lakes, whether in the form of that Mecca-born worship of Allah, or the creeping caravans and slave-gangs of Arab trader. Of all such intercontinental peninsulas, Florida alone seems to have had no rôle as an intermediary. Its native ethnic affinities were wholly with its own continent. It has given nothing to South America and received nothing thence. The northward expansion of Arawak and Carib tribes from Venezuela in historic times ceased at Cuba and Hayti. The Straits drew a dividing line. Local conditions in Florida itself probably furnish the explanation of this anomaly. Extensive swamps made the central and southern portion of the peninsula inhospitable to colonization from either direction, transformed it from a link into a barrier.

Atlantic peninsulas of Europe.

Peninsulas which conspicuously lack an intercontinental location must long await their intermediary phase of development, but do not escape it. The Cornish, Breton and Iberian peninsulas were all prominent in the trans-Atlantic enterprises of Europe from the end of the fifteenth century. The first French sailors to reach the new world were Breton and Norman fishermen. Plymouth, as the chief port of the Cornish peninsula, figures prominently in the history of English exploration and settlement in America. It seems scarcely accidental that most of Queen Elizabeth's great sea captains were natives of this district—Sir Francis Drake, Sir John Hawkins, Sir Humphrey Gilbert, and Sir Walter Raleigh, the latter holding the office of vice-admiral of Cornwall and Devon. It was the peninsula-like projection of South America about Cape St. Roque, twenty degrees farther east than Labrador, that welcomed the ships of Cabral and Americus Vespucius, and secured to Portugal a foothold in the Western Hemisphere.

NOTES TO CHAPTER XII

1. Ratzel, History of Mankind, Vol. I, p. 336. London, 1896-1898.
2. D. G. Brinton, The American Race, p. 41. Philadelphia, 1901.

3. D. G. Brinton, Races and Peoples, pp. 239-240. Philadelphia, 1901. Ratzel, History of Mankind, Vol. I, p. 336. London, 1896-1898.

4. A. R. Wallace, Island Life, p. 14. New York, 1892.

5. A. Heilprin, Geographical Distribution of Animals, p. 69, map. 1887.

6. *Ibid.*, pp. 78, 82, 90, 100.

7. Darwin, Origin of Species, Chap. XII. New York, 1895. A. R. Wallace, Island Life, p. 6. New York, 1892.

8. W. Z. Ripley, Races of Europe, Map on p. 43. New York, 1899.

9. *Ibid.*, pp. 39, 50, 80. Ratzel, History of Mankind, Vol. II, pp. 100-110. London, 1896-1898.

10. A. H. Keane, Ethnology, pp. 231-232, 362. Cambridge, 1896.

11. McGee and Thomas, Prehistoric North America, p. 56, Vol. XIX of History of North America. Philadelphia, 1905.

12. Fiske, Discovery of America, Vol. I, p. 224. Boston, 1893.

13. For various Asiatic and Oceanic elements, see Franz Boas, The Indians of British Columbia, *Bull. of the Amer. Geog. Society*, Vol. 28, p. 229. The Northwest Coast Tribes, Science, Vol. XII, pp. 194-196. Niblack, The Indians of the Northwest Coast, p. 385, Washington. H. H. Bancroft, The Native Races, Vol. I, pp. 177, 178, footnote; pp. 210, 225. San Francisco, 1886. W. Z. Ripley, Races of Europe, map p. 42. New York, 1899.

14. T. W. Higginson and William Macdonald, History of the United States, p. 21. New York and London, 1905.

15. Edward John Payne, History of the New World Called America, Vol. II, pp. 64-68, 74-77, 305, 388-389. Oxford, 1899.

16. Justin Winsor, Narrative and Critical History, Vol. I, p. 60. Boston, 1889.

17. Cited by E. J. Payne, History of the New World Called America, Vol. II, p. 292, footnote p. 294. Oxford, 1899.

18. Waldemar Jochelson, The Mythology of the Koryak, *The American Anthropologist*, Vol. VI, pp. 415-416, 421-425. 1904.

19. W. D. Dall, Masks, Labrets, and Certain Aboriginal Customs, Third Annual Report of Bureau of Ethnology, pp. 46-147. Washington, 1884.

20. O. T. Mason, Migration and the Food Quest, pp. 275-292. Washington, 1894.

21. McGee and Thomas, Prehistoric North America, pp. 51, 58-82. Philadelphia, 1905. Ratzel, History of Mankind, Vol. I, pp. 5-7, 145-147, 153-154. London, 1896-1898.

22. Ripley, Races of Europe, map p. 42, pp. 43-44. New York, 1899.

23. Ratzel, History of Mankind, Vol. I, p. 7. London, 1896-1898.

24. Tylor, Anthropology, pp. 86-87. New York, 1881.

25. E. J. Payne, History of the New World Called America, Vol. II, pp. 554-555. Oxford, 1899.

26. Justus Perthes, *Taschen Atlas*, p. 17. Gotha, 1905.

27. Carl Ritter, Comparative Geography, pp. 188-212. Translated by W. L. Gage, Philadelphia, 1865. N. S. Shaler, Nature and Man in America, pp. 11-18, 151-165. New York, 1896.

28. Strabo, Book II, chap. V. 26.

29. McGee and Thomas, Prehistoric North America, p. 3, map. Philadelphia, 1905.

30. D. G. Brinton, Races and Peoples, pp. 248-249. Philadelphia, 1901.

31. D. G. Brinton, The American Race, pp. 58, 103-104. Philadelphia, 1901. McGee and Thomas, Prehistoric North America, p. 86. Philadelphia, 1905 Ratzel, History of Mankind, Vol. I, pp. 5-7, 145-147, 153-

32. *Ibid.*, p. 293. E. J. Payne, History of the New World Called America, Vol. II, p. 315. Oxford, 1899.

33. *Ibid.*, Vol. II, pp. 412-417. McGee and Thomas, Prehistoric North America, pp. 72-75. Philadelphia, 1905.

34. W. H. Dall, Masks, Labrets, and Certain Aboriginal Customs, Third Annual Report of Bureau of Ethnology, pp. 146-147. Washington, 1884.

35. Cyrus Thomas, Report of Mound Explorations, pp. 522-523, 722-728. Twelfth Annual Report of the Bureau of Ethnology, Washington, 1894.

36. E. J. Payne, History of the New World Called America, Vol. II, pp. 382-383. Oxford, 1899.

37. N. S. Shaler, Nature and Man in America, pp. 151, 168-173. New York, 1891.

38. Justus Perthes, *Taschen Atlas*, p. 9. Gotha, 1905.

39. Carl Ritter, Comparative Geography, pp. 191-192. Translated by W. L. Gage, Philadelphia, 1865.

40. W. Z. Ripley, Races of Europe, pp. 247-258. New York, 1899.

41. *Ibid.*, pp. 403-409.

42. E. A. Freeman, Historical Geography of Europe, Atlas, Maps, 34, 49. London, 1882.

43. For race elements in Mesopotamia, see D. G. Hogarth, The Nearer East, Maps, pp. 173 and 176. London, 1903.

44. E. A. Freeman, Historical Geography of Europe, pp. 201-202, 506-508, 535-536, 541. London, 1882.

45. Imperial Gazetteer of India, Vol. I, pp. 293-297. Oxford, 1907.

46. Sir Thomas Holdich, India, Ethnographical map, p. 201, pp. 202, 213-216. London, 1905. B. H. Baden-Powell, The Indian Village Community, pp. 111, 116, 119, 161. London, 1896.

47. W. Z. Ripley, Races of Europe, pp. 312-321. New York, 1899. E. Reclus, Europe, Vol. IV, pp. 73, 83-84. New York, 1882.

48. H. J. Mackinder, Britain and the British Seas, Ethnographic map, p. 184, and p. 306. London, 1904.

49. W. Z. Ripley, Races of Europe, pp. 22, 23, 150-151. New York, 1899.

50. *Ibid.*, pp. 248, 258, 272.

51. *Ibid.*, pp. 247, 273.

52. *Ibid.*, pp. 401-409, and map.

53. F. Brinkley, Japan, Vol. I, pp. 38-42, 70, 75-80, 83-84, 126. Boston and Tokyo, 1901. W. E. Griffis, The Mikado's Empire, Vol. 1, pp. 73, 83. New York, 1903.

54. Henry Dyer, Dai Nippon, pp. 59, 69. New York, 1904.

55. E. A. Freeman, Historical Geography of Europe, p. 558. London, 1882.

56. *Ibid.*, pp. 559, 561. Gibbon, Decline and Fall of the Roman Empire, Vol. V, p. 248. New York, 1858.

CHAPTER XIII

ISLAND PEOPLES

Physical relationship between islands and peninsulas.

THE characteristics which mark peninsulas, namely, ample contact with the sea, small area as compared with that of the continents, peripheral location, more or less complete isolation, combined, however, with the function of bridge or passway to yet remoter lands, are all accentuated in islands. A list of the chief peninsulas of the world, as compared with the greatest islands, shows a far larger scale of areas for the former, even if the latter be made to include the vast ice-capped land-mass of Greenland (2,170,000 square kilometers or 846,000 square miles). New Guinea, the largest habitable island, has only one-fourth the area of Arabia, the largest of the peninsulas.[1] Therefore, both the advantages and disadvantages incident to a restricted area may be expected to appear in an intensified degree in islands.

Peninsulas are morphologically transition forms between mainland and islands; by slight geological changes one is converted into the other. Great Britain was a peninsula at the end of the Tertiary period, before subsidence and the erosion of Dover Channel combined to sever it from the continent. It bears to-day in its flora and fauna the evidence of its former broad connection with the mainland.[2] In Pliocene times, Sicily and Sardinia were united by a land bridge with the Tunisian projection of North Africa; and they too, in their animal and plant life, reveal the old connection with the southern continent.[3] Sometimes man himself for his own purposes converts a peninsula into an island. Often he constructs a canal, like that at Kiel or Corinth, to remove an isthmian obstruction to navigation; but occasionally he transforms his peninsula into an island for the sake of greater protection. William of Rubruquis tells us that in 1253 he found the neck of the Crimea cut through by a ditch from sea to sea by the native Comanians, who had

taken refuge in the peninsula from the Tartar invaders, and in this way had sought to make their asylum more secure.[4]

The reverse process in nature is quite as common. The Shangtung Peninsula rises like a mountainous island from the sea-like level of alluvial plains about it, suggesting that remote time when the plains were not yet deposited and an arm of the Yellow Sea covered the space between Shangtung and the highlands of Shansi.[5] The deposition of silt, aided often by slight local elevation of the coast, is constantly tying continental islands to the mainland. The Echinades Archipelago off the southwest coast of ancient Acarnania, opposite the mouth of the Achelous River, Strabo tells us, was formerly farther from shore than in his time, and was gradually being cemented to the mainland by Achelous silt. Some islets had already been absorbed in the advancing shoreline, and the same fate awaited others.[6] Farther up this western coast of Greece, the island of Leukas has been converted into a peninsula by a sickle-shaped sandbar extending across the narrow channel.[7] Nature is working in its leisurely way to attach Sakhalin to the Siberian coast. The strong marine current which sets southward from the Okhotsk Sea through the Strait of Tartary carries silt from the mouth of the heavy laden Amur River, and deposits it in the "narrows" of the strait between Capes Luzarev and Pogobi, building up sandbars that come dangerously near the surface in mid channel.[8] Here the water is so shallow that occasionally after long prevailing winds, the ground is left exposed and the island natives can walk over to Asia.[9] The close proximity of Sakhalin to the mainland and the ice bridge covering the strait in winter rob the island of much of its insular character and caused it to pass as a peninsula until 1852. Yet that five-mile wide stretch of sea on its western coast determined its selection as the great penal station of the Russian Empire. The fact that peninsular India accords in so many points of flora, fauna and even primitive ethnic stock with Madagascar and South Africa, indicates its former island nature, which has been geographically cloaked by its union with the continent of Asia.

Character of insular flora and fauna.

Islands, because of their relatively limited area and their

clearly defined boundaries, are excellent fields for the study of floral, faunal, and ethnic distribution. Small area and isolation cause in them poverty of animal and plant forms and fewer species than are found in an equal continental area. This is the curse of restricted space which we have met before. The large island group of New Zealand, with its highly diversified relief and long zonal stretch, has only a moderate list of flowering plants, in comparison with the numerous species that adorn equal areas in South Africa and southwestern Australia.[10] Ascension possessed originally less than six flowering plants. The four islands of the Greater Antilles form together a considerable area and have all possible advantages of climate and soil; but there are probably no continental areas equally big and equally favored by nature which are so poor in all the more highly organized groups of animals.[11] Islands tend to lop off the best branches. Darwin found not a single indubitable case of terrestrial mammals native to islands situated more than three hundred miles from the mainland.[12] The impoverishment extends therefore to quality as well as quantity, to man as well as to brute. In the island continent of Australia, the native mammalia, excepting some bats, a few rodents, and a wild dog, all belong to the primitive marsupial subclass; its human life, at the time of the discovery, was restricted to one retarded negroid race, showing in every part of the island a monotonous, early Stone Age development. The sparsely scattered oceanic islands of the Atlantic, owing to excessive isolation, were all, except the near-lying Canaries, uninhabited at the time of their discovery; and the Canary Islanders showed great retardation as compared with their parent stock of northern Africa. [See map page 105.]

Endemic forms.

Despite this general poverty of species, island life is distinguished by a great proportion of peculiar or endemic forms, and a tendency toward divergence, which is the effect of isolation and which becomes marked in proportion to the duration and effectiveness of isolation. Isolation, by reducing or preventing the intercrossing which holds the individual true to the normal type of the species, tends to produce divergences.[13] Hence island life is more or less differentiated

from that of the nearest mainland, according to the degree of isolation. Continental islands, lying near the coast, possess generally a flora and fauna to a large extent identical with that of the mainland, and show few endemic species and genera; whereas remote oceanic islands, which isolation has claimed for its own, are marked by intense specialization and a high percentage of species and even genera found nowhere else.[14] Even a narrow belt of dividing sea suffices to loosen the bonds of kinship. Recent as are the British Isles and near the Continent, they show some biological diversity from the mainland and from each other.[15]

Paradoxical influences of island habitats upon man.

The influence of an island habitat upon its human occupants resembles that upon its flora and fauna, but is less marked. The reason for this is twofold. The plant and animal life are always the older and therefore have longer felt the effects of isolation; hence they bear its stamp in an intensified degree. Man, as a later comer, shows closer affinity to his kin in the great cosmopolitan areas of the continents. More than this, by reason of his inventiveness and his increasing skill in navigation, he finds his sea boundary less strictly drawn, and therefore evades the full influence of his detached environment, though never able wholly to counteract it. For man in lowest stages of civilization, as for plants and animals, the isolating influence is supreme; but with higher development and advancing nautical efficiency, islands assume great accessibility because of their location on the common highway of the ocean. They become points of departure and destination of maritime navigation, at once center of dispersal and goal, the breeding place of expansive national forces seeking an outlet, and a place of hospitality for wanderers passing those shores. Yet all the while, that other tendency of islands to segregate their people, and in this aloofness to give them a peculiar and indelible national stamp, much as it differentiates its plant and animal forms, is persistently operative.

Conservative and radical tendencies.

These two antagonistic influences of an island environment may be seen working simultaneously in the same people, now one, now the other being dominant; or a period of undisturbed seclusion or exclusion may suddenly be followed by

one of extensive intercourse, receptivity or expansion. Recall the contrast in the early and later history of the Canaries, Azores, Malta, England, Mauritius and Hawaii, now a lonely, half-inhabited waste, now a busy mart or teeming way-station. Consider the pronounced insular mind of the globe-trotting Englishman, the deep-seated local conservatism characterizing that world-colonizing nation, at once the most provincial and cosmopolitan on earth. Emerson says with truth, "Every one of these islanders is an island himself, safe, tranquil, incommunicable."[16] Hating innovation, glorifying their habitudes, always searching for a precedent to justify and countenance each forward step, they have nevertheless led the world's march of progress. Scattered by their colonial and commercial enterprises over every zone, in every clime, subjected to the widest range of modifying environments, they show in their ideals the dominant influence of the home country. The trail of the Oxford education can be followed over the Empire, east to New Zealand and west to Vancouver. Highschool students of Jamaica take Oxford examinations in botany which are based upon English plant life and ignore the Caribbean flora! School children in Ceylon are compelled to study a long and unfamiliar list of errors in English speech current only in the London streets, in order to identify and correct them on the Oxford papers, distributed with Olympian impartiality to all parts of the Empire. Such insularity of mind seems to justify Bernard Shaw's description of Britain as an island whose natives regard its manners and customs as laws of nature. Yet these are the people who in the Nile Valley have become masters of irrigation, unsurpassed even by the ancient Egyptians; who, in the snow-wrapped forests of Hudson Bay, are trappers and hunters unequalled by the Indians; who, in the arid grasslands of Australia, pasture their herds like nomad shepherd or American cowboy, and in the Tropics loll like the natives, but somehow manage to do a white man's stint of work.

The case of Japan.

In Japan, isolation has excluded or reduced to controllable measure every foreign force that might break the continuity of the national development or invade the integrity of the

national ideal. Japan has always borrowed freely from neighboring Asiatic countries and recently from the whole world; yet everything in Japan bears the stamp of the indigenous. The introduction of foreign culture into the Empire has been a process of selection and profound modification to accord with the national ideals and needs.[17] Buddhism, coming from the continent, was Japanized by being grafted on to the local stock of religious ideas, so that Japanese Buddhism is strongly differentiated from the continental forms of that religion.[18] The seventeenth century Catholicism of the Jesuits, before it was hospitably received, had to be adapted to Japanese standards of duty and ritual. Modern Japanese converts to Christianity wish themselves to conduct the local missions and teach a national version of the new faith.[19] But all the while, Japanese religion has experienced no real change of heart. The core of the national faith is the indigenous Shinto cult, which no later interloper has been permitted to dislodge or seriously to transform; and this has survived, wrapped in the national consciousness, wedded to the national patriotism, lifted above competition. Here is insular conservatism.

Japan's sudden and complete abandonment of a policy of seclusion which had been rigidly maintained for two hundred and fifty years, and her entrance upon a career of widespread intercourse synchronously with one of territorial expansion and extensive emigration, form one of those apparently irreconcilable contradictions constantly springing from the isolation and world-wide accessibility of an island environment; yet underlying Japan's present receptivity of new ideas and her outwardly indiscriminate adoption of western civilization is to be detected the deep primal stamp of the Japanese character, and an instinctive determination to preserve the core of that character intact.

Islands as nurseries and disseminators of distinctive civilizations.

It is this marked national individuality, developed by isolation and accompanied often by a precocious civilization, in combination with the opposite fact of the imminent possibility of an expansive unfolding, a brilliant efflorescence followed by a wide dispersal of its seeds of culture and of empire, which has assigned to islands in all times a great

historical rôle. Rarely do these wholly originate the elements of civilization. For that their area is too small. But whatever seed ripen in the wide fields of the continents the islands transplant to their own forcing houses; there they transform and perfect the flower. Japan borrowed freely from China and Korea, as England did from continental Europe; but these two island realms have brought Asiatic and European civilization to their highest stage of development. Now the borrowers are making return with generous hand. The islands are reacting upon the continents. Japanese ideals are leavening the whole Orient from Manchuria to Ceylon. English civilization is the standard of Europe. "The Russian in his snows is aiming to be English," says Emerson. "England has inoculated all nations with her civilization, intelligence and tastes."[20]

Ancient Cretan civilization.

The recent discoveries in Crete show beyond doubt that the school of Aegean civilization was in that island. Ancient Phœnicia, Argos, even Mycenæ and Tiryns put off their mask of age and appear as rosy boys learning none too aptly of their great and elderly master. Borrowing the seeds of culture from Asia and Egypt,[21] Crete nursed and tended them through the Neolithic and Bronze Age, transformed them completely, much as scientific tillage has converted the cotton tree into a low shrub. The precocity of this civilization is clear. At early as 3000 B. C. it included an impressive style of architecture and a decorative art naturalistic and beautiful in treatment as that of modern Japan.[22] From this date till the zenith of its development in 1450 B. C., Crete became a great artistic manufacturing and distributing center for stone carving, frescoes, pottery, delicate porcelain, metal work, and gems.[23] By 1800 B. C., seven centuries before Phœnician writing is heard of, the island had matured a linear script out of an earlier pictographic form.[24] This script, partly indigenous, partly borrowed from Libya and Egypt, gives Crete the distinction of having invented the first system of writing ever practised in Europe.[25]

Yet all this wealth of achievement bore the stamp of the indigenous; nearly every trace of its remote Asiatic or Egyptian origin was obliterated. Here the isolation of an

island environment did thoroughly its work of differentiation, even on this thalassic isle which maintained constant intercourse with Egypt, the Cyclades, the Troad and the Greek peninsula.[26] Minoan art has a freshness, vivacity, and modernity that distinguishes it fundamentally from the formal products of its neighbors. "Many of the favorite subjects, like the crocus and wild goat, are native to the islands . . . Even where a motive was borrowed from Egyptian life, it was treated in a distinctive way," made tender, dramatic, vital. "In religion, as in art generally, Crete translated its loans into indigenous terms, and contributed as much as it received."[27] The curator of Egyptian antiquities in the New York Metropolitan Art Museum examined five hundred illustrations of second and third millenium antiquities from Gournia and Vasiliki in Crete, made by Mrs. Harriet Boyd Hawes during her superintendence of the excavations there, and pronounced them distinctly un-Egyptian, except one vase, probably an importation.[28] All this was achieved by a small insular segment of the Mediterranean race, in their Neolithic and Bronze Age, before the advent of those northern conquerors who brought in an Aryan speech and the gift of iron. It was in Crete, therefore, that Aegean civilization arose. On this island it had a long and brilliant pre-Hellenic career, and thence it spread to the Greek mainland and other Aegean shores.[29]

Limitation of small area in insular history.

A small cup soon overflows. Islands may not keep; they are forced to give, live by giving. Here lies their historical significance. They dispense their gifts of culture in levying upon the resources of other lands. But finally more often than not, the limitation of too small a home area steps in to arrest the national development, which then fades and decays. To this rule Great Britain and Japan are notable exceptions, owing partly to the unusual size of their insular territory, partly to a highly advantageous location. Minoan Crete, in that gray antiquity when Homeric history was still unborn, gave out of its abundance in art, government, laws and maritime knowledge to the eastern Mediterranean world, till the springs of inspiration in its own small land were exhausted, and its small population was unable to resist the

flood of northern invasion. Then the dispenser of gifts had to become an alms-taker from the younger, larger, more resourceful Hellenic world.

The same story of early but short lived preëminence comes from other Aegean islands. Before the rise of Athens, Samos under the great despot Polykrates became "the first of all cities, Hellenic or barbaric," a center of Ionian manners, luxury, art, science and culture, the seat of the first great thalassocracy or sea-power after that of Cretan Minos, a distributing point for commerce and colonies.[30] Much the same history and distinction attached to the island of Rhodes long before the first Olympiad,[31] and to the little island of Aegina.[32] If we turn to the native races of America, we find that the Haida Indians of the Queen Charlotte Archipelago are markedly superior to their Tlingit and Tsimshean kinsmen of the nearby Alaskan and British Columbian coast. In their many and varied arts they have freely borrowed from their neighbors; but they have developed these loans with such marvelous skill and independence that they greatly surpass their early masters, and are accredited with possessing the creative genius of all this coast.[33] Far away, on the remote southeastern outskirts of the island world of the Pacific, a parallel is presented by little Easter Isle. Once it was densely populated and completely tilled by a people who had achieved singular progress in agriculture, religion, masonry, sculpture in stone and wood carving, even with obsidian tools, and who alone of all the Polynesians had devised a form of hieroglyphical writing.[34] Easter Isle to-day shows only abandoned fields, the silent monuments of its huge stone idols, and the shrunken remnant of a deteriorated people.[35]

Sources of ethnic stock of islands.

Isolation and accessibility are recorded in the ethnic stock of every island. Like its flora and fauna, its aboriginal population shows an affinity to that of the nearest mainland, and this generally in proportion to geographical proximity. The long line of deposit islands, built of the off-scourings of the land, and fringing the German and Netherland coast from Texel to Wangeroog, is inhabited by the same Frisian folk which occupies the nearby shore. The

people of the Channel Isles, though long subject to England, belong to the Franco-Gallic stock and the *langue d'oïl* linguistic family of northern France. The native Canary Islanders, though giving no evidence of previous communication with any continental land at the time of their discovery, could be traced, through their physical features, speech, customs and utensils, to a remote origin in Egypt and the Berber regions of North Africa prior to the Mohammedan conquest.[36] Sakhalin harbors to-day, besides the immigrant Russians, five different peoples—Ainos, Gilyaks, Orochons, Tunguse, and Yakuts, all of them offshoots of tribes now or formerly found on the Siberian mainland a few miles away.[37]

Ethnic divergence with increased isolation.

Where the isolation of the island is more pronounced, owing either to a broader and more dangerous channel, as in the case of Madagascar and Formosa, or to the nautical incapacity of the neighboring coast peoples, as in the case of Tasmania and the Canary Islands, the ethnic influence of the mainland is weak, and the ethnic divergence of the insular population therefore more marked, even to the point of total difference in race. But this is generally a case of survival of a primitive stock in the protection of an unattractive island offering to a superior people few allurements to conquest, as illustrated by the ethnic history of the Andaman and Kurile Isles.

Differentiation of peoples and civilization on islands.

The sea forms the sharpest and broadest boundary; it makes in the island which it surrounds the conditions for differentiation. Thus while an insular population is allied in race and civilization to that of the nearest continent, it nevertheless differs from the same more than the several sub-groups of its continental kindred differ from each other. In other words, isolation makes ethnic and cultural divergence more marked on islands than on continents. The English people, despite their close kinship and constant communication with the Teutonic peoples of the European mainland, deviate from them more than any of these Germanic nations deviate from each other. The Celts of Great Britain and Ireland are sharply distinguished from the whole body of continental Celts in physical features, temperament, and cultural development. In Ireland the primitive Catholic

Church underwent a distinctive development. It was closely bound up in the tribal organization of the Irish people, lacked the system, order and magnificence of the Latinized Church, had its peculiar tonsure for monks, and its own date for celebrating Easter for nearly three hundred years after the coming of St. Patrick.[38] The Japanese, in their physical and mental characteristics, as in their whole national spirit, are more strikingly differentiated from the Chinese than the agricultural Chinese from the nomadic Buriat shepherds living east of Lake Baikal, though Chinese and Japanese are located much nearer together and are in the same stage of civilization. The Eskimo, who form one of the most homogeneous stocks, and display the greatest uniformity in language and cultural achievements of all the native American groups, have only one differentiated offshoot, the Aleutian Islanders. These, under the protection and isolation of their insular habitat from a very remote period, have developed to a greater extent than their Eskimo brethren of the mainland. The difference is evident in their language, religious ceremonies, and in details of their handiwork, such as embroidery and grass-fiber weaving.[39] The Haidas of the Queen Charlotte Archipelago show such a divergence in physique and culture from the related tribes of the mainland, that they have been accredited with a distinct origin from the other coast Indians.[40]

Differentiation of language in islands.

The differentiating influence is conspicuous in the speech of island people, which tends to form a distinct language or dialect or, in an archipelago, a group of dialects. The Channel Isles, along with their distinctive breeds of cattle, has each its own variant of the *langue d'oïl*.[41] According to Boccaccio's narrative of a Portuguese voyage to the Canaries in 1341, the natives of one island could not understand those from another, so different were their languages. The statement was repeated by a later authority in 1455 in regard to the inhabitants of Lancerote, Fuerteventura, Gomera and Ferro, who had then been Christianized. A partial explanation is supplied by the earlier visitors, who found the Canary Guanches with no means of communication between the several islands except by swimming.[42] In the Visayan group

of the Philippines, inhabited exclusively by the civilized Visayan tribes except for the Negritos in the mountainous interior, the people of Cebu can not understand their brethren in the adjacent islands; in Cuyos and Calmanianes, dialects of the Visayan are spoken.[43] [See map page 147.]

The differentiation of language from the nearby continental speech may be due to a higher development, especially on large islands affording very advantageous conditions, such as Great Britain and Japan. Japanese speech has some affinity with the great Altaic linguistic family, but no close resemblance to any sub-group.[44] It presents marked contrasts to the Chinese because it has passed beyond the agglutinative stage of development, just as English has sloughed off more of its inflectional forms than the continental Teutonic languages.

Archaic forms of speech in islands.

More often the difference is due to the survival of archaic forms of speech. This is especially the case on very small or remote islands, whose limited area or extreme isolation or both factors in conjunction present conditions for retardation. The speech of the Sardinians has a strong resemblance to the ancient Latin, retains many inflectional forms now obsolete in the continental Romance languages; but it has also been enlivened by an infusion of Catalan words, which came in by the bridge of the Balearic Islands during the centuries of Spanish rule in Sardinia.[45] Again, it is in Minorca and Majorca that this Catalan speech is found in its greatest purity to-day. On its native soil in eastern Spain, especially in Barcelona, it is gradually succumbing to the official Castilian, and probably in a few centuries will be found surviving only in the protected environment of the Balearic Isles. Icelandic and the kindred dialects of the Shetland and Faroe Islands had their origin in the classic Norse of the ninth century, and are divergent forms of the speech of the Viking explorers.[46] The old Frisian tongue of Holland, sister speech to Anglo-Saxon, survives to-day only in West Friesland beyond the great marshlands, and in the long-drawn belt of coastal islands from Terschelling through Helgoland to Sylt, as also on the neighboring shores of Schleswig-Holstein.[47] This region of linguistic survival,

insulated partially by the marshes or completely by the shallow "Wattenmeer" of this lowland coast, reminds us of the protracted life of the archaic Lithuanian speech within a circle of sea and swamp in Baltic Russia, and the survival of the Celtic tongue in peninsular Brittany, Cornwall, Wales, in Ireland, and the Highlands and islands of Scotland.

Unification of race in islands.

Islanders are always coast dwellers with a limited hinterland. Hence their stock may be differentiated from the mainland race in part for the same reason that all coastal folk in regions of maritime development are differentiated from the people of the back country, namely, because contact with the sea allows an intermittent influx of various foreign strains, which are gradually assimilated. This occasional ethnic intercrossing can be proved in greater or less degree of all island people. Here is accessibility operating against the underlying isolation of an island habitat. The English to-day represent a mixture of Celts with various distinct Teutonic elements, which had already diverged from one another in their separate habitats—Jutes, Angles, Saxons, Danes, Norse and Norman French. The subsequent detachment of these immigrant stocks by the English Channel and North Sea from their home people, and their arrival in necessarily small bands enabled them to be readily assimilated, a process which was stimulated further by the rapid increase of population, the intimate interactive life and unification of culture which characterizes all restricted areas. Hence islands, like peninsulas, despite ethnic admixtures, tend to show a surprising unification of race; they hold their people aloof from others and hold them in a close embrace, shut them off and shut them in, tend to force the amalgamation of race, culture and speech. Moreover, their relatively small area precludes effective segregation within their own borders, except where a mountainous or jungle district affords a temporary refuge for a displaced and antagonized tribe. Hence there arises a preponderance of the geographic over the ethnic and linguistic factors in the historical equation.

The uniformity in cranial type prevailing all over the British Isles is amazing; it is greater than in either Spain or Scandinavia. The cephalic indices range chiefly between

77 and 79, a restricted variation as compared with the ten points which represents the usual range for Central Europe, and the thirteen between the extremes of 75 and 88 found in France and Italy.[48] Japan stands in much the same ethnic relation to Asia as Britain to Europe. She has absorbed Aino, Mongolian, Malay and perhaps Polynesian elements, but by reason of her isolation has been left free to digest these at her leisure, so that her population is fairly well assimilated, though evidences of the old mixture can be discerned.[49] In Corsica and Sardinia a particularly low cephalic index, dropping in some communes to 73, and a particularly short stature point to a rare purity of the Mediterranean race,[50] and indicate the maintenance here of one ethnic type, despite the intermittent intrusion of various less pure stocks from the Italian mainland, Africa, Phœnicia, Arabia, and Spain. The location of the islands off the main routes of the basin, their remoteness from shore, and the strong spirit of exclusiveness native to the people,[51] bred doubtless from their isolation, have combined to reduce the amount of foreign intermixture.

Remoter sources of island populations.

Islands do not necessarily derive their population from the land that lies nearest to them. A comparatively narrow strait may effectively isolate, if the opposite shore is inhabited by a nautically inefficient race; whereas a wide stretch of ocean may fail to bar the immigration of a seafaring people. Here we find a parallel to the imperfect isolation of oceanic islands for life forms endowed with superior means of dispersal, such as marine birds, bats and insects.[52] Iceland, though relatively near Greenland, was nevertheless peopled by far away Scandinavians. These bold sailors planted their settlements even in Greenland nearly two centuries before the Eskimo. England received the numerically dominant element of its population from across the wide expanse of the North Sea, from the bare but seaman-breeding coasts of Germany, Denmark and Norway, rather than from the nearer shores of Gaul. So the Madeira and Cape Verde Isles had to wait for the coming of the nautical Portuguese to supply them with a population; and only later, owing to the demand for slave labor, did they draw upon the human

stock of nearby Africa, but even then by means of Portuguese ships.

Double sources.

Owing to the power of navigation to bridge the intervening spaces of water and hence to emphasize the accessibility rather than the isolation of these outlying fragments of land, we often find islands facing two or three ways, as it were, tenanted on different sides by different races, and this regardless of the width of the intervening seas, where the remote neighbors excel in nautical skill. Formosa is divided between its wild Malay aborigines, found on the eastern, mountainous side of the island, and Chinese settlers who cultivate the wide alluvial plain on the western side.[53] Fukien Strait, though only eighty miles wide, sufficed to bar Formosa to the land-loving northern Chinese till 1644, when the island became an asylum for refugees from the Manchu invaders; but long before, the wider stretches of sea to the south and north were mere passways for the sea-faring Malays, who were the first to people the island, and the Japanese who planted considerable colonies on its northern coasts at the beginning of the fifteenth century. [See map page 103.]

In a similar way Madagascar is divided between the Malayan Hovas, who occupy the eastern and central part of the island, and the African Sakalavas who border the western coast. [See map page 105.] This distribution of the ethnic elements corresponds to that of the insect life, which is more African on the western side and more Indo-Malayan on the eastern.[54] Though the population shows every physical type between Negro and Malayan, and ethnic diversity still predominates over ethnic unity in this vast island, nevertheless the close intercourse of an island habitat has even in Madagascar produced unification of language. Malayan speech of an ancient form prevails everywhere, and though diversified into dialects, is everywhere so much alike that all Malagasies can manage to understand one another.[55] The first inhabitants were probably African; but the wide Mozambique Current (230 miles), with its strong southward flow, was a serious barrier to fresh accessions from the mainland, especially as the nautical development of the African tribes was always low. Meanwhile, however, successive relays of sea-bred Malay-

Polynesians crossed the broad stretch of the Indian Ocean, occupied the island, and finally predominated over the original Negro stock.[56] Then in historic times came Arabs, Swahilis, and East Indians to infuse an Asiatic element into the population of the coasts, while Portuguese, English, Dutch and French set up short-lived colonies on its shores. But despite this intermittent foreign immigration, the fundamental isolation of Madagascar, combined with its large area, enabled it to go its own slow historical gait, with a minimum of interference from outside, till France in 1895 began to assume control of the island.

Mixed population of small thalassic isles.

Small thalassic islands, at an early date in their history, lose their ethnic unity and present a highly mixed population. The reasons for this are two. The early maritime development characterizing enclosed seas covers them with a network of marine routes, on which such islands serve as way stations and mid-sea markets for the surrounding shores. Sailors and traders, colonists and conquerors flock to them from every side. Such a nodal location on commercial routes insures to islands a cosmopolitanism of race, as opposed to the ethnic differentiation and unity which follows an outlying or oceanic situation. Here the factor of many-sided accessibility predominates over isolation.

The prevailing small area of such thalassic islands, moreover, involves a population so small that it is highly susceptible to the effects of intercrossing. Too restricted to absorb the constant influx of foreign elements, the inhabitants tend to become a highly mixed, polyglot breed. This they continue to be by the constant addition of foreign strains, so long as the islands remain foci of trade or strategic points for the control of the marine highways. Diomede Island in Bering Strait is the great market place of the polar tribes. Here Siberian Chukches and Alaskan Eskimos make their exchanges. The Eskimo of St. Lawrence Island in Bering Sea, from long intercourse, have adopted certain articles of dress, the boats and part of the vocabulary of the Chukches.[57] Kilwauru, located on a sand-bank at the eastern end of Ceram, on the border between Malayan and Papuan island districts, is the metropolis of native traders

in the Far East. Here gather the *praus* of the sea-faring Bugis bringing manufactured goods from Singapore, and boats laden with the natural products of New Guinea.[58] The smaller these island marts and the wider their circle of trade, the more mixed is their population. Thursday Isle, an English coaling-station in Torres Strait, is a port of call for all steamers bound from Europe or China for east Australian ports, besides being a center of a big local trade in pearl shell and tripang. Hence its population of 526 souls comprises 270 Europeans of various nationalities, including British, Germans, Scandinavians, Danes, Spanish, Portuguese, French and Australians of European origin, besides 256 South Sea Islanders, Papuans, Africans, Philippinos, Chinese and other Asiatics.[59]

Mixed population of island markets.

Antiquity shows the same thing on a smaller scale, which grew, however, with the expansion of the circle of commerce. Ancient Aegina in the Saronic Gulf received inhabitants from Crete, Argos, Epidaurus in eastern Argolis and Athens; it became a central maritime market and its people sea-traders, whose goods of a certain small kind became known as "Aegina wares."[60] Delos at the crossroads of the Aegean was the center of longer radii. It became the inn for travelers and merchants sailing from Asia and Egypt to Italy and Greece, and hence drew to itself the trade and people of the whole Mediterranean basin.[61] The northwestern Indian Ocean had a similar emporium in the ancient Dioscoridis, (Sokotra) which focused on itself the trade between Arabia and eastern Africa.[62]

Ceylon's location made it in ancient and medieval times the common meeting place for Arab traders from the west and Chinese merchants from the east; it thus became the Sicily of the semi-enclosed North Indian Ocean. To-day its capital Colombo is "the Clapham Junction of the Eastern Seas," where passengers change steamers for China, India and Australia; a port of call for vessels passing from the Straits of Malacca to the Persian Gulf or Mediterranean. Hence Ceylon's solid nucleus of Singhalese and Tamil population, protected against absorption by the large area of the island (25,365 square miles) is interspersed in the coastal

districts with Arabs, Portuguese, Eurasians dating from the old Portuguese occupation, and some ten thousand Europeans.[63] The island of Gotland, located at the crossroads of the Baltic, was early adopted by the Hanseatic merchants as their maritime base for the exploitation of Swedish, Finnish, and Russian trade. Here were "peoples of divers tongues," so the old chronicles say, while the archeological finds of Byzantine, Cufic, Roman, Anglo-Saxon and German coins testify to the wide circle of trade whose radii focused at this nodal point of the Baltic.[64]

Significant location of island way stations.

The great importance of such islands has been due solely to their location. Their size and resources are negligible quantities, but their natural position as way stations lent them preëminence so long as navigation held to short "laps," and was restricted to enclosed seas. In the wide expanse of the open ocean, similar sparsely scattered isles, like Ascension, St. Helena, the Canaries and Hawaii, assumed importance in proportion to their scarcity. Though never the centers of rife intercourse like Delos and Gotland, those lying conspicuously in the track of commerce have succeeded in drawing to themselves the typical polyglot nodal population. Mauritius, located at the southwestern entrance of the Indian Ocean about equally distant from Aden, Ceylon, Bombay, Singapore and West Australia, and possessing the best harbor within many hundred miles, has been held successively by Dutch, French and English, and to-day has a dense population of French, English and Hindus.[65] A situation at the northeast entrance to the Caribbean Sea, keystone of the vast arch formed by the Greater and Lesser Antilles, made the island of St. Thomas a natural distributing point for this whole basin. Facing that much traveled Virgin Passage, and forming the first objective of vessels bound from Europe to Panama, it became a great ship rendezvous, and assumed strategic and commercial importance from early times. We find the same political owners here as in Mauritius and in the same order—Dutch, French and English, though in 1671 the island was occupied by the Danes, then from 1807 to 1815 by the English again, and finally secured by the Danes.[66] The history of the Falkland Islands is a significant

reflection of their location on the south oceanic trade route, where they command the entrance to the Magellan Straits and the passage round the Horn. Here on the outskirts of the world, where they form the only break in the wide blank surface of the South Atlantic, they have been coveted and held in turn by the chief European powers having colonies in the Orient,—by France, Spain, England, Spain again, England again, by Argentine in 1820, and finally by England since 1833. Their possession was of especial advantage to Great Britain, which had no other base in this part of the world intermediate between England and New Zealand.

Thalassic islands as goals of expansion.

Islands located in enclosed seas display the transitional character of border districts. They are outposts of the surrounding shores, and become therefore the first objective of every expanding movement, whether commercial or political, setting out from the adjacent coasts. Such islands are swept by successive waves of conquest or colonization, and they carry in their people and language evidences of the wrack left behind on their shores. This has been the history of Aegina, Cyprus, Rhodes, Crete, Malta, Corfu, Sicily and Sardinia. That of Cyprus is typical. It was the first island base for the ancient Tyrian fleets, and had its Phœnician settlements in 1045 B. C. From that time it was one of the many prizes in the Mediterranean grab-bag for the surrounding nations. After the decline of Tyre, it was occupied by Greeks, then passed in turn to Assyrians, Egyptians, Persians, Romans, Saracens, Byzantines, and in 1191 was seized by the Crusaders. Later it fell to Egypt again; but in 1373 was taken by Genoa, in 1463 by Venice, in 1571 by the Turks, and finally in 1878 was consigned to England.[67] All these successive occupants have left their mark upon its people, speech, culture and architecture. In the same way Sicily, located at the waist of the Mediterranean, has received the imprint of Greeks, Carthagenians, Romans, Saracens, Normans, Spaniards and Italians.[68] Its architectural remains bear the stamp of these successive occupants in every degree of purity and blending. The Sicilians of to-day are a mixture of all these intrusive stocks and speak a form of Italian corrupted by the infusion of Arabic words.[69] In 1071 when

the Normans laid siege to Palermo, five languages were spoken on the island,—Greek, Latin, Hebrew, Arabic and vulgar Sicilian, evidence enough that it was the meeting ground of the nations of Europe, Asia and North Africa.[70] Polyglot Malta to-day tells the same story of successive conquests, the same shuttlecock history.[71] Almost every language of Europe is spoken here; but the native Maltese speech is a corrupt form of Arabic mixed with modern Italian and ancient Phœnician words.[72] The whole island is ethnographically a border hybrid of Europe and North Africa. The Channel Isles are to-day the only spot in Europe where French and English survive side by side as official and commercial languages. French and Italian meet on equal terms in Corsica. Chinese, Japanese and Malays have traded and warred and treated on the debatable land of Formosa. The Aru, Ke, and other small archipelagoes of the Banda Sea link together the pure Malay and the pure Papuan districts, between which they lie.

From the border character of many islands there follow often far-reaching historical effects. Like all border regions they are natural battlegrounds. Their historical episodes are small, often slow and insidious in their movement, but large in their final content; for they are prone to end in a sudden dramatic *denouement* that draws the startled gaze of all the neighboring world. It was the destiny of Sicily to make and unmake the fortunes of ancient Carthage. Ceylon, from the dawn of history, lured traders who enriched and conquerors who oppressed peninsular India. The advance of Spain to the Canary Isles was the drowsy prologue to the brilliant drama of American discovery. The island of Tsushima in the Korean Strait was seized by the forces of Kublai Khan in 1280 as the base of their attack upon Japan;[73] and when in 1857 the Russian bear tried to plant a foot on this island, Japan saw danger in the movement and ordered him off.[74] Now we find Japan newly established in Sakhalin, the Elliot Islands and Formosa, by means of which and her own archipelago she blankets the coast of Asia for twenty-two hundred miles. This geographical situation may be productive of history.

Political detachability of islands.

Islands are detached areas physically and readily detached

politically. Though insularity gives them some measure of protection, their relatively small size and consequently small populations make them easy victims for a conquering sea power, and easy to hold in subjection. The security of an island habitat against aggression therefore, increases with its size, its efficiency in naval warfare, and its degree of isolation, the last of which factors depends in turn upon its location as thalassic or oceanic. Islands of enclosed seas, necessarily small and never far from the close encircling lands, are engulfed by every tide of conquest emanating from the nearby shores. Oesel and Dago have been held in succession by every Baltic power, by the Teutonic Orders, Denmark, Sweden and Russia. Gotland has acknowledged allegiance to the Hanseatic League, to Denmark and Sweden. Sardinia, occupying the center of the western Mediterranean, has figured in a varied series of political combinations,—with ancient Carthage, Rome, the Saracens of North Africa, with Sicily, Pisa, Aragon, Piedmont, and finally now with united Italy.[75] To the land-bred Teutonic hordes which swept over western Europe in the early centuries of our era, a narrow strip of sea was some protection for Sicily, Corsica, Sardinia, Malta and the Balearic Isles. Hence we find these islands slow in succumbing to their non-maritime conquerors, and readily regained by the energetic Justinian. Later they fell victim to the sea-wise Saracens, but again gravitated back to their closer and more natural European connections.

Insular weakness due to small area.

More often the small area of an island facilitates its retention in bondage, when the large and less isolated continental districts have thrown off an unwelcome yoke. Athens, with her strong navy, found it an easy task to whip back into the ranks of the Delian Confederacy her recalcitrant island subjects like Naxos, Samos and Thasos; but her mutinous cities in peninsular Chalcidice and isthmian Megara, incited to revolt and aided by their neighbors,[76] were less at her mercy. This principle was recognized by Thucydides,[77] and taken advantage of by the Lacedæmonians during the great war for Spartan supremacy. England has been able to hold Ireland in a vise. Of all her former French territory, she retains only the Channel Isles. Cuba and Porto Rico

remained in the crushing grasp of Spain sixty-four years after Mexico and the continental states of Central and South America, by mutual help and encouragement, had secured independence. The islands found that the isolation which confers protection from outside aggression meant for them detachment from friendly sources of succor on the mainland. The desultory help of filibuster expeditions, easily checked at the port of departure or landing, availed little to supplement the inadequate forces of rebellion pent up on their relatively small areas. By contrast, Mexico's larger area and population, continually stirred by American example and encouragement, reinforced by American volunteers and even by United States army officers, found revolt from 1812 to 1824 a comparatively easy task.

Cuba suffered from its geographic aloofness. So did little Crete, which submitted to Turkish oppression sixty years after the continental Greeks had made good their claim to freedom. Nor was this the first time that Cretan liberty had suffered from the detachment of an island environment. Aristotle recognized the principle when he wrote: "The people of Crete have hitherto submitted to the rule of the leading families as *Cosmi*, because the insular situation of Crete cuts off the interference of strangers or foreigners which might stir up rebellion against the unjust or partial government." And then he adds that this insular exclusion of outside incitement long rendered the fidelity of the *Perioeci* or serf-like peasants of Crete a striking contrast to the uneasy spirit of the Spartan Helots, who were constantly stirred to revolt by the free farmers of Argos, Messinia and Arcadia.[78] Thus ancient like modern Crete missed those beneficient stimuli which penetrate a land frontier, but are cut off by the absolute boundary of the sea.

Island remains of broken empires.

Island fragments of broken empires are found everywhere. They figure conspicuously in that scattered location indicative of declining power. Little St. Pierre and Miquelon are the last geographical evidences of France's former dominion in Canada. The English Bermudas and Bahamas point back to the time when Great Britain held the long-drawn opposite coast. The British, French, Dutch, Danish,

as once even Swedish, holdings in the Lesser Antilles are island monuments to lost continental domains, as recently were Cuba and Porto Rico to Spain's once vast American empire. Of Portugal's widespread dominion in the Orient there remain to her only the island fragments of Timor, Kambing, Macao and Diu, besides two coastal points on the western face of peninsular India. All the former continental holdings of the Sultan of Zanzibar have been absorbed into the neighboring German and British territories, and only the islands of Zanzibar and Pemba remain to him by the temporary indulgence of his strong neighbors. The Sheik of the Bahrein Islands originally held also the large kingdom of El Hasa on the nearby Persian Gulf littoral of Arabia; but he lost this to the Turks in 1840, and now retains the Bahrein Islands as the residuum of his former territories.[79]

Security of such remnants merely passive.

The insular remnants of empires are tolerated, because their small size, when unsupported by important location, usually renders them innocuous; and their geographic isolation removes them from international entanglements, unless some far-reaching anthropo-geographic readjustment lends them a new strategic or commercial importance. The construction of the Suez Canal gave England a motive for the acquisition of Cyprus in 1878, as a nearer base than Malta for the protection of Port Said, just as the present Panama Canal project led the United States to re-open negotiations for the purchase of the Danish Isles. One cannot get away from the impression that the law of political detachability will operate again to make some new distribution of the particolored political holdings in the Lesser Antilles. The small size of these islands, and their thalassic location commanding approaches to a large region of only partially developed resources and to the interoceanic passway across it, will pitch them into the dice-box on the occasion of every naval war between their sovereign powers.

The shifting fate of political detachability becomes moderated in islands of the open ocean, because of their remoteness from the colonizing or conquering movements emanating from the continents. In contrast to the changing political connections of thalassic isles, consider the calm or

monotonous political history of outlying islands like the Shetland, Faroes, Iceland, Canaries, Madeira, Cape Verde, Azores, St. Helena, Ascension and Hawaii. The Norse colony of Iceland, as a republic, maintained loose connections with its mother country from 874 to 1264; then for nearly six centuries it followed the political fate of Norway till 1814, when an oversight left it in the hands of Denmark on the dissolution of the union of Denmark and Norway. The Azores have known no history except that which came to them from Portugal; even their discovery goes back to a Saracen navigator who, in 1147, sailed from the mouth of the Tagus a thousand miles straight into the sunset.[80] For two hundred years thereafter extreme isolation kept them outside the pale of history till their rediscovery by Prince Henry, the Navigator.

Political autonomy of islands based upon area and location.

Land-masses, as we have found, are independent by location or independent by size. Large islands, especially where they occupy an outskirt locaton, may long succeed in maintaining an independent national existence; but to render this permanent, they must supplement their area by the acquisition of continental lands, according to the law of increasing territorial aggregates. Great Britain and Japan, though ethnically and culturally appendages of the nearby mainland, were large enough, aided by the dividing sea, to maintain political autonomy. They absorbed all the insular fragments lying about them to extend their areas, and then each in turn entered upon a career of continental expansion. To Japan this movement as a determined policy came late, only when she faced the alternative of absorbing territory or being absorbed by all-devouring Russia. The isolation of Madagascar resulted in only slight community of race with Africa, and combined with large area, has kept the island to a great extent distinct from the political history of Africa. The impulses which swept the eastern coast of the continent reached the outlying island with abated force. Arab, Portuguese, Dutch and English only scratched its rim. The character of its western coasts, of its vigorous Malayan population, and of the intervening Mozambique Current rendered conquest difficult from the African shore.

Its large size, with the promise of abundant resources, offered a bait to conquest, yet put a barrier in its way. Hence we find that not till 1895, when the partition of continental Africa was almost accomplished, did the French conquest of Madagascar occur.

By contrast, the closely grouped East Indies, long coveted for their tropical products, suffered a contagion of conquest. The large size of these islands, so far from granting them immunity, only enabled the epidemic of Portuguese and Dutch dominion to pass from one to the other more readily, and that even when the spice and pepper trade languished from a plethora of products. But even here the size of the islands, plus the sub-equatorial climate which bars genuine white colonization, has restricted the effective political dominion of Europeans to the coasts, and thus favored the survival of the natives undisturbed in the interior, with all their primitive institutions. The largest islands, like Borneo and Sumatra, have vast inland tracts still unexplored and devoted to savagery, thus illustrating the contrast between center and periphery. When Australia, the largest of all the Pacific island group, became an object of European expansion, its temperate and sub-tropical location adapted it for white colonization, and the easy task of conquering its weak and retarded native tribes encouraged its appropriation; but the natural autonomy which belongs to large area and detached location asserted itself in the history of British Australia. The island continent is now erected into a confederation of states, enjoying virtual independence. In New Zealand, we find the recent colonists taking advantage of their isolation to work out undisturbed certain unique social theories. Here, against a background of arrested aboriginal development, another race evinces a radical spirit of progress; and to these contrasted results equally the detached island environment has contributed its share.

Historical effects of island isolation: primitive retardation.

The historical development of island peoples bears always in greater or less degree the stamp of isolation; but this isolation may lead to opposite cultural results. It may mean in one case retardation, in another accelerated development. Its geographical advantages are distinctly

relative, increasing rapidly with a rising scale of civilization. Therefore in an island habitat the race factor may operate with or against the geographic factor in producing a desirable historical result. If the isolation is almost complete, the cultural status of the inhabitants low, and therefore their need of stimulation from without very great, the lack of it will sink them deeper in barbarism than their kinsmen on the mainland. The negroes of Africa, taken as a whole, occupy a higher economic and cultural rank than the black races of Australia and Melanesia; and for this difference one cause at least is to be found in the difference of their habitats. The knowledge of iron, stock-raising, and many branches of agriculture were continental achievements, which belonged to the great eastern land-mass and spread from Egypt over Africa even to the Hottentot country; the lack of them among the Australians must be attributed to their insularity, which barred them from this knowledge, just as the ignorance of iron and other metals among the native Canary Islanders[81] can only be ascribed to a sea barrier fifty-two miles wide. The scant acquaintance of the Balearic Islanders with iron in Roman days[82] points to insular detachment. The lack of native domesticable animals in the Pacific archipelagoes illustrates another limitation incident to the restricted fauna of islands, though this particular lack also retarded the cultural development of primitive North America.

Later stimulation of development.

On the other hand, people who have already secured the fundamental elements of civilization find the partial seclusion of an island environment favorable to their further progress, because it permits their powers to unfold unhindered, protects them from the friction of border quarrels, from the disturbance and desolation of invading armies, to which continental peoples are constantly exposed. But even here the advantage lies in insulation but not in isolation,[83] in a location like that of England or Japan, near enough to a continent to draw thence culture, commerce and occasional new strains of blood, but detached by sea-girt boundaries broad enough to ward off overwhelming aggressions. Such a location insures enough segregation for protection, but also

opportunity for universal contact over the vast commons of the sea.

Excessive isolation may mean impoverishment in purse and progress even for an advanced race. Ireland has long suffered from its outskirt location. It lies too much in the shadow of England, and has been barred by the larger island from many warming rays of immigration, culture and commerce that would have vitalized its national existence. The "round barrow" men of the Bronze Age, the Romans, and the Normans never carried thither their respective contributions to civilization. The Scandinavians infused into its population only inconsiderable strains of their vigorous northern blood.[84] In consequence the Irish are to-day substantially the same race as in Cæsar's time, except for the small, unassimilated group of antagonistic English and Lowland Scotch, both Teutonic, in Ulster.[85] Barred by Great Britain from direct contact with the Continent and all its stimulating influences, suffering from unfavorable conditions of climate and topography, Ireland's political evolution progressed at a snail's pace. It tarried in the tribal stage till after the English conquest, presenting a primitive social organization such as existed nowhere in continental Europe. Property was communal till the time of the Tudors, and all law was customary.[86] Over-protected by excessive isolation, it failed to learn the salutary lesson of political co-operation and centralization for defense, such as Scotland learned from England's aggressions, and England from her close continental neighbors. Great Britain, meanwhile, intercepted the best that the Continent had to give, both blows and blessings, and found an advantage in each. The steady prosecution of her continental wars demanded the gradual erection of a standing army, which weakened the power of feudalism; and the voting of funds for the conduct of these same wars put a whip into the hand of Parliament.

Excessive isolation.

The history of Iceland illustrates the advantage and subsequently the drawback of isolation. The energetic spirits who, at the end of the ninth century, resented the centralization of political power in Norway and escaped from the turmoil and oppression of the home country to the remote

The case of Iceland.

asylum offered by Iceland, maintained there till 1262 the only absolutely free republic in the world.[87] They had brought with them various seeds of culture and progress, which grew and flowered richly in this peaceful soil. Iceland became the center of brilliant maritime and colonial achievements, the home of a native literature which surpassed that of all its contemporaries except Dante's Italy.[88] But after the decay of the Greenland colonies converted Iceland from a focal into a remote terminal point, and after the progress of the world became based upon complex and far-reaching commercial relations, the blight of extreme isolation settled upon the island; peace became stagnation.

Protection of an island environment.

The concomitant of isolation is protection. Though this protection, if the result of extreme isolation, may mean an early cessation of development, history shows that in the lower stages of civilization, when the social organism is small and weak, and its germs of progress easily blighted, islands offer the sheltered environment in which imported flowers of culture not only survive but improve; in less protected fields they deteriorate or disappear. When learning and Christianity had been almost wiped out on the continent of Europe by the ravages of barbarian invasion between 450 and 800 A. D., in Ireland they grew and flourished. In the seventh and eighth centuries, the high scholarship of the Irish monks and their enthusiastic love of learning for its own sake drew to their schools students of the noblest rank from both England and France.[89] It was from Irish teachers that the Picts of Scotland and the Angles of northern England received their first lessons in Christianity. These fixed their mission stations again on islands, on Iona off southwestern Scotland and on Lindisfarne or Holy Isle near the east coast of Northumbria.[90] It was in the protected environment of the medieval Iceland that Scandinavian literature reached its highest development.

Insular protection was undoubtedly a factor in the brilliant cultural development of Crete. The progress of the early civilization from the late Stone Age through the Bronze Age was continuous; it bears no trace of any strong outside influence or sudden transition, no evidence of disturbance like

an invasion or conquest by an alien people till 1200 B. C. when the latest stage of Minoan art was crushed by barbarian incursion from the north.[91]

Factor of protection in Ceylon and Japan.

The early history of the Singhalese monarchy in Ceylon from 250 B. C. to 416 A. D., when even the narrow moat of Palk Strait discouraged Tamil invasions from the mainland, shows the brilliant development possible under even a slight degree of protection.[92] However, in the case of these Ceylon Aryans, as in that of the Icelandic Norse, we must keep in mind the fact that the bearers of this culture were picked men, as are early maritime colonists the world over. The sea selects and then protects its island folk. But the seclusion of Ceylon was more favorable to progress than the mainland of India, with its incessant political and religious upheavals. Japan, in contrast to China's long list of invasions, shows the peace of an insular location. She never suffered any overwhelming influx of alien races or any foreign conquest. The armada sent by Kublai Khan in 1281 to subdue the islands paralleled the experience of the famous Spanish fleet three centuries later in English waters. This is the only attempt to invade Japan that recorded history shows.[93] In the original peopling of the island by Mongolian stock at the cost of the Aino aborigines, there is evidence of two distinct and perhaps widely separated immigrations from the mainland, one from Korea and another from more northern Asia. Thus Japan's population contained two continental elements, which seem to have held themselves in the relation of governing and governed class, much as Norman and Saxon did in England, while the Ainos lingered in the geographical background of mountain fastness and outlying islands, as the primitive Celts did in the British Isles. In the case both of England and Japan, the island location made the occupation by continental races a fitful, piecemeal process, not an inundation, because only small parties could land from time to time. The result was gradual or partial amalgamation of the various stocks, but nowhere annihilation.

Character of the invaders as factor.

But island location was not the sole factor in the equation. Similarity of race and relative parity of civilization between the successive immigrants and the original population, as

well as the small numbers of the invaders, made the struggle for the ownership of the island not wholly one-sided, and was later favorable to amalgamation in England as in Japan; whereas very small bands of far-coming Spaniards in the Canaries, Cuba, and Porto Rico resulted in the extinction of the original inhabitants, by the process operating now in New Zealand and Australia. Prior to the arrival of the Europeans in the Antilles, the conquest of these islands by South American Caribs had resulted in race intermixture. These sea-marauders brought no women with them in their small boats from the distant mainland, so they killed off the men and married the Arawak women of the islands. Here again insular location plus similarity of race and culture produced amalgamation, as opposed to extermination of the vanquished by over-sea invaders.

While the insular security of a primitive folk like the Tasmanians, Hawaiians and Malagasies is only passive, that of a civilized people like the English and modern Japanese is active, consciously utilized and reinforced. It is therefore more effective, and productive of more varied political and cultural results. Such people can allow themselves extensive contact with other nations, because they know it is in their power to control or check such contact at will. Japan took refuge in its medieval period in a policy of seclusion suggested by its island habitat,[95] relying on the passive protection of isolation. England, on the other hand, from the time of King Alfred, built up a navy to resist invasion. The effect, after the political unification of Great Britain, was a guarantee of protection against foreign attack, the concentration of the national defenses in a navy,[96] the elimination of the standing army which despotic monarchs might have used to crush the people, the consequent release of a large working force from military service, and the application of these to the development of English industry.[97]

Islands as places of refuge.

Islands, as naturally protected districts, are often sought as places of refuge by the weak or vanquished, and thus are drawn into the field of historical movement. We find this principle operating also in the animal world. The fur seals of the North Pacific have fled from the American coasts and

found an asylum on the Pribiloff Islands of Bering Sea, where their concentration and isolation have enabled them to become wards of the United States government, though this result they did not foresee. The last Rhytina or Arctic sea-cow was found on an island in Bering Strait.[98] So the Veneti of Northern Italy in the fifth century sought an asylum from the desolating Huns and, a century later, from the Lombards, in the deposit islands at the head of the Adriatic, and there found the geographic conditions for a brilliant commercial and cultural development. Formosa got its first contingent of Chinese settlers in the thirteenth century in refugees seeking a place of safety from Kublai Khan's armies; and its second in 1644 in a Chinese chief and his followers who had refused to submit to the victorious Manchus. In 1637 Formosa was an asylum also for Japanese Christians, who escaped thither from the persecutions attending the discovery of Jesuit conspiracies against the government.[99] The Azores, soon after their rediscovery in 1431, were colonized largely by Flemish refugees,[100] just as Iceland was peopled by rebellious Norwegians. To such voluntary exiles the dividing sea gives a peculiar sense of security, this by a psychological law. Hence England owing to its insular location, and also to its free government, has always been an asylum for the oppressed. The large body of Huguenot refugees who sought her shores after the revocation of the Edict of Nantes added a valuable element to her population.

Convict islands.

Islands find their populations enriched by the immigration of this select class who refuse to acquiesce in oppression and injustice. But the geographic conditions which make islands natural asylums make them also obvious places of detention for undesirable members of society; these conditions render segregation complete, escape difficult or impossible, and control easy. Hence we find that almost all the nations of the world owning islands have utilized them as penal stations. From the gray dawn of history the Isles of the Blessed have been balanced by the isles of the cursed. The radiant Garden of Hesperides has found its antithesis in the black hell of Norfolk Isle, peopled by the "doubly condemned" criminals whom not even the depraved convict citizens of

Botany Bay could tolerate.[101] There is scarcely an island of the Mediterranean without this sinister vein in its history. The archipelagoes of the ancient Aegean were constantly receiving political exiles from continental Greece. Augustus Cæsar confined his degenerate daughter Julia, the wife of Tiberius, on the island of Pandateria, one of the Ponza group; and banished her paramour, Sempronius Gracchus, to Cercina in the Syrtis Minor off the African coast.[102] Other Roman matrons of high degree but low morals and corrupt officials were exiled to Corsica, Sardinia, Seriphos, Amorgos and other of the Cyclades.[103] To-day Italy has prisons or penal stations in Ischia, the Ponza group, Procida, Nisida, Elba, Pantellaria, Lampedusa, Ustica, and especially in the Lipari Isles, where the convicts are employed in mining sulphur, alum and pumice from the volcanic cones.[104]

Penal colonies on uninhabited islands.

In modern times many remote oceanic islands have gotten their first or only white settlers from this criminal class. Such are the citizens whom Chile has sent to Easter Isle twenty-five hundred miles away out in the Pacific.[105] The inhabitants of Fernando Noronha, 125 miles off the eastern point of South America, are convicts from Brazil, together with the warders and troops who guard them.[106] In 1832 Ecuador began to use the uninhabited Gallapagos Islands, lying 730 miles west of its coast, as a penal settlement.[107] The history of St. Helena is typical. Its first inhabitants were some Portuguese deserters who in punishment were marooned here from a Portuguese ship with a supply of seed and cattle. They proved industrious and had cultivated a good deal of the land when four years later they were removed to Portugal. The next inhabitants were a few slaves of both sexes who escaped from a slave ship that had stopped here for wood and water. These multiplied, worked and restored the overgrown plantations of their predecessors, till a Portuguese vessel about twenty years later was sent to exterminate them. A few escaped to the woods, however, and were found there in prosperity in 1588.[108] From 1815 till 1821 St. Helena was the prison of Napoleon.

Many of these penal islands seem chosen with a view to their severe or unhealthy climate, which would forever repel

free immigration and therefore render them useless for any other purpose. This is true of the French Isles du Salut off the Guiana coast, of Spanish Fernando Po in the Gulf of Guinea, of the Andaman and Nicobar Islands, notoriously unhealthy, which receive the criminals of British India,[109] and of numerous others. A bleak climate and unproductive soil have added to the horror of exile life in Sakhalin, as they overshadowed existence in the Falkland Islands, when these were a penal colony of Spain and later of Argentine.[110]

Island prisons for political offenders.

In the case of political offenders and incorrigibles, the island prison is as remote and inaccessible as possible. The classic example is Napoleon's consignment to Elba and subsequently to St. Helena, whence escape was impossible. Spain has sent its rebellious subjects, even university professors of independent views, to Fernando Po in the Gulf of Guinea and Teneriffe in the Canaries.[111] Russian political offenders of the most dangerous class are confined first in the Schlüsselberg prison, situated on a small island in Lake Ladoga near the effluence of the Neva. There they languish in solitary confinement or are transferred to far-off Sakhalin, whose very name is taboo in St. Petersburg.[112] During our Civil War, one of the Dry Tortugas, lying a hundred miles west of the southern point of Florida and at that time the most isolated island belonging to the American government, was used as a prison for dangerous Confederates; and here later three conspirators in the assassination of President Lincoln were incarcerated.[113] Far away to the southeast, off the coast of South America, are the Isles du Salut, a French penal station for criminals of the worst class. The Isle du Diable, ominous of name, lies farthest out to sea. This was for five years the prison of Dreyfus. Its other inhabitants are lepers. Isles of the cursed indeed!

Islands as places of survival.

What islands have they tend to hold, to segregate, secrete from meddling hands, preserve untouched and unaltered. Owing to this power to protect, islands show a large percentage of rare archaic forms of animal and plant life. The insular fauna of Australia, Tasmania, New Guinea and Madagascar display a succession of strange, ancestral forms going back to the biological infancy of the world. The

Canaries in the Atlantic and Celebes in the Pacific are museums of living antiquities, some of them dating probably from Miocene times.[114] Such survivals are found elsewhere only in high mountains, whose inaccessible slopes also offer protection against excessive competition. Hence some of the antiquated species of insular Celebes, Formosa, Japan and Hainon occur again on the Asiatic mainland only in the Himalayas.[115]

For man, too, islands and their sister areas of isolation, mountains, are areas of survivals. The shrinking remnants of that half-dwarf Negrito stock which may have formed the aboriginal population of southern Asia are found to-day only in the mountains of peninsular India and in island groups like the Andaman and the Philippines. But even in the Philippines, they are confined either to the mountainous interiors of the larger islands, or to little coastal islets like Polillo, Alabat, Jomalig, and others.[116] [See map page 147.] Yezo, Sakhalin and the Kurile Isles harbor the last feeble remnants of the Ainos, a primitive people who formerly occupied a long stretch of the Asiatic coast south of the Amur mouth. The protected environment of these islands has postponed the doom of extinction toward which the Ainos are hastening.[117] With insular conservatism they dress, live and seek their food on the sea to-day, just as depicted in Japanese art and literature at the dawn of history.[118] [See map page 103.]

Insular survivals of manners and customs

It is chiefly on islands of harsh climatic conditions, like Sakhalin, or of peculiarly restricted resources and area, like the Andaman, or of remote, side-tracked location, like Iceland, Sardinia and Cape Breton, that the stamp of the primitive or antiquated is strongest. Even when not apparent in race stock, owing to the ubiquitous colonization of maritime peoples, it marks the language and customs of even these late-coming occupants, because an island environment asserts always some power to isolate. This is due not only to the encircling moat of sea, but also to the restricted insular area, too small to attract to itself the great currents of human activity which infuse cosmopolitan ideas and innovations, and too poor to buy the material improvements which progress offers. If the tourist in Sicily finds the women of

Taormina or Girgenti spinning with a hand spindle, and the express trains moving only twelve miles an hour, he can take these two facts as the product of a small, detached area, although this island lies at the crossroads of the Mediterranean. Corsica and Sardinia, lying off the main routes of travel in this basin, are two of the most primitive and isolated spots of Europe. Here the old wooden plow of Roman days is still in common use as it is in Crete, and feudal institutions of the Middle Ages still prevail to some extent,[119] —a fact which recalls the long survival of feudalism in Japan. The little Isle of Man, almost in sight of the English coast, has retained an old Norse form of government. Here survives the primitive custom of orally proclaiming every new law from the Tynwald Hill before it can take effect,[120] and the other ancient usage of holding the court of justice on the same hill under the open sky. The Faroe Islands and Iceland are museums of Norse antiquities. The stamp of isolation and therefore conservatism is most marked in the remoter, northern islands. Surnames are rare in Iceland, and such as exist are mostly of foreign origin. In their place, Christian names followed by the patronymic prevail; but in the Faroes, these patronymics have in a great many cases become recognized as surnames. So again, while the Faroese women still use a rude spinning-wheel introduced from Scotland in 1671, in Iceland this spinning-wheel was still an innovation in 1800, and even to-day competes with spindles. Hand-querns for grinding wheat, stone hammers for pounding fish and roots, the wooden weighing-beam of the ancient Northmen, and quaint marriage customs give the final touch of aloofness and antiquity to life on these remote islands.[121]

Effects of small area in islands.

As all island life bears more or less the mark of isolation, so it betrays the narrow area that has served at its base. Though islands show a wide variation in size from the 301,000 square miles (771,900 square kilometers) of New Guinea or the 291,000 square miles (745,950 square kilometers) of Borneo to the private estates like the Scilly Isles, Gardiner and Shelter islands off Long Island, or those small, sea-fenced pastures for sheep and goats near the New England coast

and in the Aegean, yet small islands predominate; the large ones are very few. Islands comprise a scant seven per cent. of the total land area of the earth, and their number is very great,—nine hundred, for instance, in the Philippine group alone. Therefore small area is a conspicuous feature of islands generally. It produces in island people all those effects which are characteristic of small, naturally defined areas, especially early or precocious social, political and cultural development. The value of islands in this respect belongs to the youth of the world, as seen in the ancient Mediterranean, or in the adolescence of modern primitive races; it declines as the limitations rather than the advantages of restricted territory preponderate in later historical development.

Political dominion of small islands.

This early maturity, combined with the power to expend the concentrated national or tribal forces in any given direction, often results in the domination of a very small island over a large group. In the Society Islands, Cook found little Balabola ruling over Ulietea (Raitea) and Otaha, the former of these alone being over twice the size of Bolabola, whose name commanded respect as far as Tahiti.[122] The Fiji Archipelago was ruled in pre-Christian days by the little islet of Mbau, scarcely a mile long, which lies like a pebble beside massive Viti Levu. It was the chief center of political power and its supremacy was owned by nearly all the group. The next important political center was Rewa, no larger than Mbau, which had for its subject big Mbengga.[123] In the same way, the Solomon group was ruled by Mongusaie and Simbo, just as tiny New Lauenberg lorded it over the larger islands of the Bismarck Archipelago.[124] When the Dutch in 1613 undertook the conquest of the coveted Spice Isles, they found there two rival sultans seated in the two minute islets of Ternate and Tidore off the west coast of Gilolo. Their collective possessions, which the Dutch took, comprised all the Moluccas, the Ke and Banda groups, the whole of northwestern New Guinea, and Mindanao of the Philippines.[125]

It was no unusual thing for classic Aegean isles to control and exploit goodly stretches of the nearest coast, or to exercise dominion over other islands. Aristotle tells us that

Crete's location across the southern end of the Aegean Sea confirmed to it by nature the early naval empire of the Hellenic world. Minos conquered some of the islands, colonized others,[126] and, according to the story of Theseus and the Minotaur, laid Athens under tribute; but his suppression of piracy in these waters and his conspicuous leadership in the art of navigation point to a yet more significant supremacy. So insular Venice ruled and exploited large dependencies. The island of Zealand, strategically located at the entrance to the Baltic, has been the heart and head and strong right arm of the Danish dominion, through all its long history of fluctuating boundaries. England's insularity has been the strongest single factor in the growth of her vast colonial empire and in the maintenance of its loyal allegiance and solidarity. The widely strewn plantation of her colonies is the result of that teeming island seed-bed at home; while the very smallness of the mother country is the guarantee of its supremacy over its dependencies, because it is too small either to oppress them or to get along without them. Now an Asiatic variant of English history is promised us by growing Japan.

Economic limitations of their small area.

Though political supremacy is possible even to an island of insignificant size, both the advantages and the grave disadvantages of small area are constantly asserting themselves. Some developments peculiar to large territory are here eliminated at the start. For instance, robbery and brigandage, which were so long a scourge in peninsular Greece, were unheard of on the small Aegean islands. Sheep-raising was at an early date safer in England than on the Continent, because wolves were earlier exterminated there. Bio-geography shows an increasing impoverishment in the flora and fauna of small islands with distance from the mainland. In the Pacific Ocean, this progressive impoverishment from west to east has had great influence upon human life in the islands. In Polynesia, therefore, all influences of the chase and of pastoral life are wanting, while in Melanesia, with its larger islands and larger number of land animals, hunting still plays an important part, and is the chief source of subsistence for many New Guinea villages.[127] Therefore a corresponding decay of projectile weapons is to be traced west to east,

and is conspicuous in those crumbs of land constituting Polynesia and Micronesia. The limit of the bow and arrow includes the northeastern portion of the Philippine group, cuts through the Malay Archipelago so as to include the Moluccas and Flores, includes Melanesia as far as Tonga or the Friendly Isles, but excludes Micronesia, Polynesia and Australia. Even in Melanesia, however, bows and arrows are not universal; they are lacking in peripheral islands like New Caledonia and New Ireland.[128]

The restriction of trees, also, with the exception of the coco-palm and pandanus, has had its effect upon boat making. This general impoverishment is unmistakably reflected in the whole civilization of the smaller islands of Polynesia and Micronesia, especially in the Paumota and Pelew groups. In the countless coralline islands which strew the Pacific, another restricting factor is found in their monotonous geological formation. Owing to the lack of hard stone, especially of flint, native utensils and weapons have to be fashioned out of wood, bones, shells, and sharks' teeth.[129]

Poverty of alluvial lowlands in islands.

Nor does the geographical limitation end here. Islands have proportionately a scanter allowance of fertile alluvial lowlands than have continents. This follows from their geological history, except in the case of those low deposit islands built up from the waste of the land. Most islands are summits of submerged mountain ranges, like Corsica and Sardinia, the Aegean archipelagoes, the Greater Antilles, Vancouver, and the countless fiord groups; or they are single or composite volcanic cones, like the Canaries, Azores, Lipari, Kurile, Fiji, Ascension, St. Helena and the Lesser Antilles; or they are a combination of highland subsidence and volcanic out-thrust, like Japan, the Philippines, the long Sunda chain and Iceland. Both geologic histories involve high reliefs, steep slopes, a deep surrounding sea, and hence rarely a shallow continental shelf for the accumulation of broad alluvial lowlands. Among the Aegean Isles only Naxos has a flood plain; all the rest have steep coasts, with few sand or gravel beaches, and only small deposit plains at the head of deep and precipitous embayments. Japan's area of arable soil is to-day only 15.7 per cent. of its total surface, even

after the gentler slopes of its mountains have been terraced up two thousand feet. Some authorities put the figure lower, at 10 and 12 per cent.

Dense populations of islands.

Yet in spite of limited area and this paucity of local resources, islands constantly surprise us by their relatively dense populations. More often than not they show a density exceeding that of the nearest mainland having the same zonal location, often the same geologic structure and soil. Along with other small, naturally defined areas, they tend to a closer packing of the population. Yet side by side with this relative over-population, we find other islands uninhabited or tenanted only by sheep, goats and cattle.

In the wide Pacific world comprising Australia and Oceanica, islands take up fifteen per cent. of the total land area, but they contain forty-four per cent. of the population.[130] The insular empire of Japan, despite the paucity of its arable soil, has a density of population nearly twice that of China, nearly three times that of Korea, and exceeding that of any political subdivision of continental Asia; but Japan, in turn, is surpassed in congestion only by Java, with a density of 587 to the square mile,[131] which almost equals that of Belgium (643) and England (600). Great Britain has a density of population (453 to the square mile) only exceeded in continental Europe by that of Belgium, but surpassed nearly threefold by that of the little Channel Isles, which amounts to 1254 to the square mile.[132] If the average density of the United Kingdom is greatly diminished in Ireland, just as Italy's is in Sardinia and France's in Corsica, this fact is due primarily to a side-tracked or overshadowed location and adverse topography, combined with misgovernment.

If we compare countries which are partly insular, partly continental, the same truth emerges. The kingdom of Greece has fifteen per cent. of its territory in islands. Here again population reaches its greatest compactness in Corfu and Zante, which are nearly thrice as thickly inhabited as the rest of Greece.[133] Similarly the islands which constitute so large a part of Denmark have an average density of 269 to the square mile as opposed to the 112 of Jutland. The figures rise to 215 to the square mile in the Danish West

Indies, but drop low in the bleak, subarctic insular dependencies of Greenland, Iceland and the Faroes. Portugal's density is tripled in the Madeiras[134] and doubled in the Azores,[135] but drops in the badly placed Cape Verde Island, exposed to tropical heat and the desiccating tradewinds blowing off the Sahara. Spain's average rises twenty-five per cent. in the Canary Islands, which she has colonized, and France's nearly doubles in the French West Indies. The British West Indies, also, with the exception of the broken coral bank constituting the Bahamas, show a similar surprising density of population, which in Bermuda and Barbadoes surpasses that of England, and approximates the teeming human life of the Channel Isles.

Density of population in Polynesia.

This general tendency toward a close packing of the population in the smaller areas of land comes out just as distinctly in islands inhabited by natural peoples in the lower stages of development. Despite the retarded economic methods peculiar to savagery and barbarism, the Polynesian islands, for instance, often show a density of population equal to that of Spain and Greece (100 to the square mile) and exceeding that of European Turkey and Russia. "Over the whole extent of the South Sea," says Robert Louis Stevenson, "from one tropic to another, we find traces of a bygone state of over-population, when the resources of even a tropical soil were taxed, and even the improvident Polynesian trembled for the future."[136] He calls the Gilbert atolls "warrens of men."[137] One of them, Drummond's Island, with an area of about twenty square miles, contained a population of 10,000 in 1840, and all the atolls were densely populated.[138] To-day they count 35,000 inhabitants in less than 200 square miles. The neighboring Marshall group has 15,000 on its 158 square miles of area. The Caroline and Pelew archipelagoes show a density of 69 to the square mile, the Tonga or Friendly group harbor about 60 and the French holdings of Futuma and Wallis (or Uea) the same.[139] So the Bismarck Archipelago, Solomon, Hawaiian, Samoan and Marianne islands have to-day populations by no means sparse, despite the blight that everywhere follows the contact of superior with primitive peoples.

In all these cases, if economic status be taken into account, we have a density bordering on congestion; but the situation assumes a new aspect if we realize that the crowded inhabitants of small islands often have the run of the coco plantations and fishing grounds of an entire archipelago. The smaller, less desirable islands are retained as fish and coco-palm preserves to be visited only periodically. Of a low, cramped, monotonous coral group, often only the largest and most productive is inhabited,[140] but that contains a population surprising in view of the small base, restricted resources and low cultural status of its inhabitants. The population of the wide-strewn Paumota atolls was estimated as about 10,000 in 1840. Of these fully one-half lived on Anaa or Chain Island, and one-fourth on Gambier, but they levied on the resources of the other islands for supplies.[141] The Tonga Islands at the same time were estimated to have 20,000 inhabitants, about half of whom were concentrated on Tongatabu, while Hapai and Varao held about 4,000 each.[142]

Various causes of this density.

This is one of the sharp contrasts in island life,—here density akin to congestion, there a few miles away a deserted reef or cone rising from the sea, tenanted only by sheep or goats or marine birds, its solitude broken only by the occasional crunching of a boat's keel upon its beach, as some visitant from a neighboring isle comes to shear wool, gather coco-nuts, catch birds or collect their eggs. All the 500 inhabitants of the Westman Isles off the southern coast of Iceland live in one village on Heimey, and support themselves almost entirely by fishing and fowling birds on the wild crags of the archipelago.[143] An oceanic climate, free contact with the Gulf Stream, and remoteness from the widespread ice fields of Iceland give them an advantage over the vast island to the north. Only twenty-seven of the ninety islands composing the Orkney group are inhabited, and about forty smaller ones afford natural meadows for sheep on their old red sandstone soil;[144] but Pomona, the largest Orkney has 17,000 inhabitants on its 207 square miles of territory or 85 to the square mile. The Shetlands tell the same story—29 out of 100 islands inhabited, some of the *holms* or smaller islets

Crowded and vacant islands.

serving as pastures for the sturdy ponies and diminutive cattle, and Mainland, the largest of the group, showing 53 inhabitants to the square mile. This is a density far greater than is reached in the nearby regions of Scotland, where the county of Sutherland can boast only 13 to the square mile, and Invernesshire 20. Here again insularity and contracted area do their work of compressing population.

The causes of this insular density of population are not far to seek. Islands can always rely on the double larder of land and sea. They are moreover prone to focus in themselves the fishing industry of a large continental area, owing to their ample contact with the sea. Shetland is now the chief seat of the Scotch herring fishery, a fact which contributes to its comparatively dense population. The concentration of the French export trade of Newfoundland fish in little St. Pierre and Miquelon accounts for the relatively teeming population (70 to the square mile) and the wealth of those scraps of islands. So the Lofoden Islands of Norway, like Iceland, Newfoundland and Sakhalin, balance a generous sea against an ungenerous soil, and thus support a population otherwise impossible.

Oceanic climate as factor.

For these far northern islands, the moderating effect of an oceanic climate has been a factor in making them relatively populous, just as it is on tropical isles by mitigating heat and drought. The prosperity and populousness of the Bermuda Islands are to be explained largely by the mild, equable climate which permits the raising of early vegetables and flowers for English and American markets. Like climatic conditions and a like industry account for the 2,000 souls living on the inhabited islands of the Scilly group. Here intensive horticulture supports a large force of workmen and yields a profit to the lord proprietor. Syros in the Cyclades fattens on its early spring vegetable trade with Athens and Constantinople.[145]

In the Mediterranean lands, where drought and excessive heat during the growing season offer adverse conditions for agriculture, the small islands, especially those of fertile volcanic soil, show the greatest productivity and hence marked density of population. Though the rainfall may be slight,

except where a volcanic peak rises to condense moisture, heavy dews and the thick mists of spring quicken vegetation. This is the case in Malta, which boasts a population of 2,000 to the square mile, exclusive of the English garrison.[146] Little Limosa and Pantellaria, the merest fragments of land out in the mid-channel of the Mediterranean, have a population of 200 to the square mile.[147] The Lipari group north of Sicily average nearly 400 on every square mile of their fertile soil;[148] but this average rises in Salina to 500, and in Lipari itself, as also in Ponza of the Pontine group, to nearly 1300. Here fertile volcanic slopes of highly cultivated land lift vineyards, orchards of figs, and plantations of currants to the sunny air. But nearby Alicuri, almost uncultivated, has a sparse population of some five hundred shepherds and fishermen. Panaria and Filicuri are in about the same plight. Here again we find those sharp island contrasts.

Relation of density to area.

The insular region of the Indian Ocean, which is inhabited by peoples quite different in race and cultural status from those of the Mediterranean, yet again demonstrates the power of islands to attract, preserve, multiply and concentrate population. This is especially true of the smaller islands, which in every case show a density of population many times that of the neighboring mainland of Africa. Only vast Madagascar, continental in size, repeats the sparsity of the continent. An oceanic climate increases the humidity of the islands as compared with the mainland lying in the same desiccating tradewind belt. Moreover their small area has enabled them to be permeated by incoming Arab, English, and French influences, which have raised their status of civilization and therewith the average density of population. This culminates in English Mauritius, which shows 540 inhabitants to the square mile, occupied in the production of sugar, molasses, rum, vanilla, aloes, and copra. In Zanzibar this density is 220 to the square mile; in Reunion 230; in Mayotte, the Comores and Seychelles, the average varies from 100 to 145 to the square mile, though Mahe in the Seychelles group has one town of 20,000 inhabitants.[149]

In the Malay Archipelago, an oceanic climate and tropical location have combined to stimulate fertility to the

greatest extent; but this local wealth has been exploited in the highest degree in the smaller islands having relatively the longest coastline and amplest contact with the sea. The great continent-like areas of Borneo, New Guinea and Sumatra show a correspondingly sparse population; Java, smaller than the smallest of these and coated with mud from its fertilizing volcanoes, supports 587 inhabitants to the square mile; but this exceptional average is due to rare local productivity. Java's little neighbors to the east, Bali and Lombok, each with an area of only about 2100 square miles, have a density respectively of 333 and 195 to the square mile. This density rises suddenly in small Amboina (area 264 square miles), the isle of the famous clove monopoly, to 1000,[150] drops in the other Moluccas, where Papuan influences are strong, even to 20, but rises again in the pure Malayan Philippines to 69. In the Philippines a distinct connection is to be traced between the density of population and smallness of area. The explanation lies in the attraction of the coast for the sea-faring Malay race, and the mathematical law of increase of shoreline with decrease of insular area. Since 65 per cent. of the whole Philippine population inhabits coastal municipalities, it is not surprising that the 73 islands from ten to a hundred square miles in area count 127 inhabitants to the square mile, and those of less than ten square miles, of which there are nearly a thousand, have a density of 238.[151]

This same insular density, supported by fertility, fisheries and trade, appears again in the West Indies, and also the contrast in density between large and small islands down to a certain limit of diminutiveness. The Greater Antilles increase in density from Cuba through smaller Haiti and Jamaica down to little Porto Rico, which boasts 264 inhabitants to the square mile. In the smaller area of the Danish Indies and Guadeloupe about this same density (215 and 274) reappears; but it mounts to 470 in Martinique and to 1160 in Barbadoes.[152]

Island resorts.

Climate advantages often encourage density of population on islands, by attracting to them visitors who make a local demand for the fruits of the soil and thereby swell the income

of the islands. For instance, about the densely populated region of the Gulf of Naples, Procida has 14,000 inhabitants on its one and a half square miles of area, while fertile Ischia and Capri have 1400 to the square mile. Here a rich volcanic soil, peaks which attract rain by their altitude and visitors by their beauty, and a mild oceanic climate delightful in winter as in summer, all contribute to density of population. Sicily, Malta and Corfu also gain in the same way in winter. The Isle of Man owes some of its recent increase of population, now 238 to the square mile, to the fact that it has become the summer playground for the numerous factory workers of Lancashire in England.

Density of population affected by focal location for trade.

Sometimes climatic advantages are reinforced by a favorable focal point, which brings the profits of trade to supplement those of agriculture. This factor of distributing and exporting center has undoubtedly contributed to the prosperity and population of Reunion, Mahe, Mauritius and Zanzibar, as it did formerly to that of ancient Rhodes and modern St. Thomas at the angle of the Antilles. Barbadoes, by reason of its outpost location to the east of the Windward Isles, is the first to catch incoming vessels from England, and is therefore a focus of steamship lines and a distributing point for the southern archipelago, so that we find here the greatest density of any island in the West Indies.[153] The 9405 inhabitants of Charlotte Amalie on St. Thomas and the 15,000 of Willemsted on Curaçao give these also a characteristic insular density. Samos, blessed with good soil, an excellent position on Aegean maritime routes, and virtual autonomy, supports a population of 300 to the square mile.[154]

Focal location alone can often achieve this density. Syros, one of the smallest and by nature the most barren of the Cyclades, though well tilled is the great commercial and shipping center of the Aegean, and has in Hermupolis with its 17,700 population by far the largest town of the archipelago.[155] This development has come since Greece achieved its independence. It reminds us of the distinction and doubtless also population that belonged to Delos in ancient days. Advantageous commercial location and density of population characterize Kilwauru and Singapore at the east and west extremi-

ties of the Malay Archipelago. The Bahrein Islands, which England has acquired in the Persian Gulf, serve as an emporium of trade with eastern Arabia and have a local wealth in their pearl fisheries. These facts account for the 68,000 inhabitants dwelling on their 240 square miles (600 square kilometers) of sterile surface.[156]

Overflow of island population to the mainland.

The concentration of population in these favored spots of land with inelastic boundaries, and the tendency of that population to increase under the stimulating, interactive life make the restriction of area soon felt. For this reason, so many colonies which are started on inshore islets from motives of protection have to be transferred to the mainland to insure a food supply. A settlement of Huguenots, made in 1555 on an island in the harbor of Rio Janeiro, found its base too small for cultivation, but feared the attack of the hostile Indians and Portuguese on the mainland. After three years of a struggling existence, it fell a prey to the Portuguese.[157] De Monts' short-lived colony on an island in the mouth of the St. Croix River in 1604 had an excellent site for defence, but was cut off by the drifting ice in winter from mainland supplies of wood, water and game, while no cultivation was possible in the sandy soil.[158]

Such sites suffice for mere trading posts, but are inadequate for the larger social group of a real colony. The early Greek colonists, with their predilection for insular locations, recognized this limitation and offset it by the occupation of a strip of the nearest mainland, cultivated and defended by fortified posts, as an adjunct to the support of the islands. Such a subsidiary coastal hem was called a *Paraea*. The ancient Greek colonies on the islands of Thasos and Samothrace each possessed such a Paraea.[159] The Aeolian inhabitants of Tenedos held a strip of the opposite Troad coast north of Cape Lekton, while those of Lesbos appropriated the south coast of the Troad.[160] In the same way Tarentum and Syracuse, begun on inshore islands, soon overflowed on to the mainland. Sometimes the island site is abandoned altogether and the colony transferred to the mainland. The ancient Greek colony of Cyrene had an initial existence on the island of Platea just off the Libyan coast,

but, not flourishing there, was moved after an interval of several years to the African mainland, where "the sky was perforated" by the mountains of Barca.[161] De Monts' colony was removed from its island to Port Royal in Nova Scotia.

Precocious development of island agriculture.

Where an island offers in its climate and soil conditions favorable to agriculture, tillage begins early to assume an intensive, scientific character, to supply the increasing demand for food. The land, fixed in the amount of area, must be made elastic in its productivity by the application of intelligence and industry. Hence in island habitats, an early development of agriculture, accompanied by a parallel skill in exploiting the food resources of the sea, is a prevailing feature. In Oceanica, agriculture is everywhere indigenous, but shows greatest progress in islands like Tonga and Fiji, where climate and soil are neither lavish nor niggardly in their gifts, but yield a due return for the labor of tillage. The Society[162] and Samoan Islands, where nature has been more prodigal, rank lower in agriculture, though George Forster found in Tahiti a relatively high degree of cultivation.[163] The small, rocky, coralline Paumotas rank lower still, but even here plantains, sugar-cane, sweet potatoes, yams, taro and solanum are raised. The crowded atolls of the Gilbert group show pains-taking tillage. Here we find coco-palms with their roots fertilized with powdered pumice, and taro cultivated in trenches excavated for the purpose and located near the lagoons, so that the water may percolate through the coral sand to the thirsty roots.[164] To lonely Easter Isle nature has applied a relentless lash. At the time of Cook's visit it was woodless and boatless except for one rickety canoe, and therefore was almost excluded from the food supplies of the sea. Hence its destitute natives, by means of careful and often ingenious tillage, made its parched and rocky slopes support excellent plantations of bananas and sugar-cane.[165]

The islands of Melanesia show generally fenced fields, terrace farming on mountain sides, irrigation canals, fertilized soils, well trimmed shade trees and beautiful flower gardens,[166] proof that the cultivation of the ground has advanced to the aesthetic stage, as it has in insular Japan.

In Tonga the coco-palm plantations are weeded and manured. Here, after a devastating war, the victorious chief devotes his attention to the cultivation of the land, which soon assumes a beautiful and flourishing appearance.[167] In Tongatabu, which is described by the early visitors as one big garden, Cook found officials appointed to inspect all produce of the island and to enforce the cultivation of a certain quota of land by each householder.[168] Here agriculture is a national concern.

Melanesian agriculture.

In the minute land fragments which constitute Micronesia, fishing is the chief source of subsistence; agriculture, especially for the all important taro, is limited to the larger islands like the Pelews. In the vast islands of western Melanesia, agriculture is on the whole less advanced. New Guinea, where the chase yields support to many villages, has large sections still a wilderness, though some parts are cultivated like a garden. In the smaller Melanesian islands, such as New Hebrides, New Britain and the Solomon group, we find extensive plantations laid out on irrigated terraces. In New Hebrides and the Banks Islands every single village has its flowers and aromatic herbs.[169] But it is in Fiji that native island agriculture seems to culminate. Here a race of dark, frizzly haired savages, addicted to cannibalism, have in the art of tillage taken a spurt forward in civilization, till in this respect they stand abreast of the average European. The German asparagus bed is not cultivated more carefully than the yam plants of Fiji; these also are grown in mounds made of soil which has been previously pulverized by hand. The variety and excellence of their vegetable products are amazing, and find their reflection in an elaborate national cuisine, strangely at variance with the otherwise savage life.[170]

West of Melanesia, the Malay Archipelago shows a high average of tillage. The inhabitants of Java, Madura, Bali, Lombok and Sumbawa are skilled agriculturists and employ an elaborate system of irrigation,[171] but the natives of Timor, on the other hand, have made little progress. In the Philippines a rich and varied agriculture has been the chief source of wealth since the Spanish conquest early in the

sixteenth century, proving a native aptitude which began to develop long before.[172]

Intensive tillage.

The dense population of the Mediterranean islands is the concomitant of an advanced agriculture. The connection between elaborate tillage and scant insular area is indicated in the earliest history of classic Aegina. The inhabitants of this island were called Myrmidons, Strabo tells us, because by digging like ants they covered the rocks with earth to cultivate all the ground; and in order to economize the soil for this purpose, lived in excavations under ground and abstained from the use of bricks.[173] To-day, terraced slopes, irrigation, hand-made soils, hoe and spade tillage, rotation of crops, and a rich variety of field and garden products characterize the economic history of most Mediterranean islands, whether Elba, the Lipari, Ponza, Procida, Capri, Ischia, Pantellaria, Lampedusa,[174] or the Aegean groups. The sterile rock of Malta has been converted for two-thirds of its area into fertile gardens, fields and orchards. The upper stratum of rock has been pulverized and enriched by manure; the surface has been terraced and walled to protect it against high winds. In consequence, the Maltese gardens are famous throughout the Mediterranean.[175] In the Cyclades every patch of tillable ground is cultivated by the industrious inhabitants. Terraced slopes are green with orchards of various southern fruits, and between the trees are planted melons and vegetables. Fallow land and uncultivated hillsides, as well as the limestone islands fit only for pastures, are used for flocks of sheep and goats.[176]

Japanese agriculture.

It is in Japan that agriculture has attained a national and aesthetic importance reached nowhere else. Of the 150,000 square miles constituting Japan proper, two-thirds are mountains; large tracts of lowlands are useless rock wastes, owing to the detritus carried down by inundating mountain torrents.[177] Hence to-day arable land forms only 15.7 per cent. of the whole area. During the two hundred and fifty years of exclusion when emigration and foreign trade were forbidden, a large and growing population had to be supplied from a small insular area, further restricted by reason of the configuration of the surface. Here the geographical effects

of a small, naturally defined area worked out to their logical conclusion. Consequently agriculture progressed rapidly and gave the farmer a rank in the social scale such as he attained nowhere else.[178] His methods of tillage are much the same as in overcrowded China, but his national importance and hence his ranking in society is much higher. In Japan to-day farming absorbs 60 per cent. of the population. The system of tillage, in many respects primitive, is yet very thorough, and by means of skilful manuring makes one plot of ground yield two or three crops per annum.[179] Every inch of arable land is cultivated in grain, vegetables and fruits. Mountains and hills are terraced and tilled far up their slopes. Meadows are conspicuously absent, as are also fallow fields. Land is too valuable to lie idle. Labor is chiefly manual and is shared by the women and children; mattock and hoe are more common than the plow.[180] Such elaborate cultivation and such pressure of population eventuate in small holdings. In Japan one hectar (2 1-2 acres) is the average farm per family.

The case of England.

While Japan's agriculture reflected the small area of an island environment, and under its influence reached a high development, England's from the beginning of the fifteenth century declined before the competition of English commerce, which gained ascendency owing to the easy accessibility of Great Britain to the markets of Europe. The ravages of the Black Death in the latter half of the fourteenth century produced a scarcity of agricultural laborers and hence a prohibitive increase of wages. To economize labor, the great proprietors resorted to sheep farming and the raising of wool, which, either in the raw state or manufactured into cloth, became the basis of English foreign trade. A distinct deterioration in agriculture followed this reversion to a pastoral basis of economic life, supplemented by a growing commerce which absorbed all the enterprise of the country. The steady contraction of the area under tillage threw out of employment the great mass of agricultural laborers, made them paupers and vagrants.[181] Hence England entered the period of maritime discoveries with a redundant population. This furnished the raw material for her colonies, and made her

territorial expansion assume a solid, permanent character, unknown to the flimsy trading stations which mark the mere extension of a field of commerce.

Emigration and colonization from islands.

Even when agriculture, fisheries and commerce have done their utmost, in the various stages of civilization, to increase the food supply, yet insular populations tend to outgrow the means of subsistence procurable from their narrow base. Hence islanders, like peninsula peoples, are prone to emigrate and colonize. This tendency is encouraged by their mobility, born of their nautical skill and maritime location. King Minos of Crete, according to Thucydides and Aristotle, colonized the Cyclades.[182] Greece, from its redundant population, peopled various Aegean and Ionian islands, which in turn threw off spores of settlements to other isles and shores. Corcyra, which was colonized from the Peloponnesus, sent out a daughter colony to Epidamnos on the Illyrian coast. Andros, one of the Cyclades, as early as 654 B. C., colonized Acanthus and Stagirus in Chalcidice.[183] Paros, settled first by Cretans and then by Ionians, at a very early date sent colonies to Thasos and to Parium on the Propontis, while Samos was a perennial fountain emitting streams of settlement to Thrace, Cilicia, Crete, Italy and Sicily. [Map page 251.]

This moving picture of Greek emigration is duplicated in the Malay Archipelago, especially in the smaller eastern islands. Almost every Malay tribe has traditions based upon migrations. The southern Philippines derived the considerable Mohammedan element of their populations from the Samal Laut, who came from Sumatra and the islands of the Strait of Malacca.[184] A Malayan strain can be traced through Polynesia to far-off Easter Isle. Sometimes the emigration is a voluntary exile from home for a short period and a definite purpose. The inhabitants of Bouton, Binungku, and the neighboring islets, all of them located southeast of Celebes, have for the past twenty-five years come in great numbers to the larger islands of Ceram, Buru, Amboina and Banda, where they have laid out and carefully cultivated plantations of maize, tobacco, bananas and coco-palms. Generally only the men come, work two years, save their profits and then return home. These ambitious tillers look like savages, are

shy as wild things of the woods, and work naked to the waist.[185]

Polynesia, Melanesia and Micronesia, where every condition of land and sea tends to develop the migratory spirit, form a region of extensive colonization.[186] Settlements of one race are scattered among the island groups of another, making the ethnic boundaries wide penumbras. In some smaller islands of Melanesia the Polynesian colonists have exterminated or expelled the original inhabitants, and are found there now with all their distinctive race characteristics; but in the larger islands, they have been merged in the resident population, and their presence is only to be surmised from the existence of Polynesian customs, such as father-right in New Hebrides and Solomon Island side by side with the prevailing Melanesian mother-right.[187] In small islands, like Tongatabu, Samoa and Fiji, emigration becomes habitual, a gradual spilling over of the redundant population and hence not a formidable inundation. In all this insular region of the Pacific, the impulse to emigration is so persistent, that the resulting inter-insular colonization obliterates sharp distinctions of race; it annuls the segregation of an island environment, and makes everywhere for amalgamation and unification, rather than differentiation.[188]

Modern emigration from islands.

Among highly civilized peoples, where better economic methods bring greater density of population and set at the same time a higher standard of living, emigration from islands is especially marked. Japan has seen a formidable exodus since an end was put to its long period of compression. This has taken the form of widespread emigration to various foreign lands, notably the Hawaiian Islands and the United States, and also of internal colonization in its recently acquired territory in Formosa and Korea.[189] The Maltese have spread from their congested island, and are found to-day as gardeners, sailors and traders along all the Mediterranean coasts.[190] Majorca and the more barren Cyclades[191] tell the same story. The men of Capri go in considerable numbers to South America, but generally return home again. The Icelanders often pull themselves out of the stagnation of their lonely, ungenerous island to become thrifty citizens of western Canada.

Maritime enterprise as outlet.

Emigration from islands readily throws itself into the channel of navigation and foreign trade. The northern Sporades, especially Skiathos and Skopelos, are the home of sailors who can be found over all the world.[192] In this appetency for a nautical career, small inshore islets are often distinguished from the nearby mainland. Nearly all the masculine population of the Frisian Islands were seamen prior to 1807. In the eighteenth century a third of the Hamburg vessels were commanded by captains from the little island of Sylte, and a third of the Greenland fleet of the Netherlands by natives of Föhr.[193]

In England the exodus took the form of trading expeditions and the foundation of commercial colonies long before the food resources of the island had been even considerably developed. The accessible sea offered lines of least resistance, while the monopoly of the land by a privileged aristocracy and the fiercely defended corn laws made the limitations of a small area more oppressive. In Ireland, a landless peasantry in a grainless land, dulled by deprivation of opportunity, found in emigration an escape from insupportable evils.

Artificial checks to population.

While emigration draws off the surplus population, there tend to develop in islands, as also in barren highlands where population early reaches the point of saturation, various devices to restrict natural increase. The evils of congestion are foreseen and guarded against. Abbé Raynal, writing of islanders in general, remarked as far back as 1795, "It is among these people that we trace the origin of that multitude of singular institutions which retards the progress of population. Anthropophagy, the castration of males, the infibulation of females, late marriages, the consecration of virginity, the approbation of celibacy, the punishments exercised against girls who become mothers at too early an age," he enumerates as such checks. Malthus, in his Essay on Population, commenting on this statement, notes that the bounds to the number of inhabitants on islands, especially small ones, are so narrow and so obvious that no one can ignore them.[194]

The checks to population practiced on islands are either

preventive or positive. The extreme measure to restrict marriage is found among the wretched Budumas who inhabit the small, marshy islands of Lake Chad. Tribal custom allows only the chiefs and headmen to have wives. A brass crescent inserted in the ear of a boy indicates the favored one among a chief's sons destined to carry on his race. For his brothers this is made physically impossible; they become big, dull, timid creatures contributing by their fishing to the support of the thinly populated villages. The natives of the Shari River delta on the southern shore of Lake Chad use Buduma as a term of contempt for a man.[195]

Polyandry. In islands, as in unproductive highlands where hunger stalks abroad, marriage readily takes the form of polyandry. On the Canary Islands, at the time of their conquest in 1402, polyandry existed in Lancerote and possibly in Fuerteventura, often assigning one woman to three husbands; but in the other islands of the group monogamy was strictly maintained.[196] In Oceanica polygamy, monogamy or polyandry prevails according to a man's means, the poverty of the islands, and the supply of women. A plurality of wives is always the privilege of the chiefs and the wealthy, but all three forms of marriage may be found on the same island. Scarcity of women gives rise to polyandry in Tahiti,[197] and consigns one woman to four or five men. In old Hawaii, where there were four or five men to one woman a kind of incipient polyandry arose by the addition of a countenanced paramour to the married couple's establishment.[198] Robert Louis Stevenson found the same complaisant arrangement a common one in the Marquesas, where the husband's deputy was designated by the term of *pikio* in the native vocabulary.[199] Polyandry existed in Easter Isle, among whose stunted and destitute population the men far exceeded the women, and children were few, according to reports of the early visitors.[200] Numerous other instances make this connection between island habitat, deficiency of women, need of checking increase, and polyandrous marriages an obvious one.[201]

Infanticide. This disproportion of the sexes in Oceanica is due to the murder of female infants, too early child-bearing, overwork,

privation, licentiousness, and the violence of the men.[202] The imminence of famine dictates certain positive checks to population, among which infanticide and abortion are widespread in Oceanica. In some parts of the New Hebrides and the Solomon groups it is so habitual, that in some families all children are killed, and substitutes purchased at will.[203] In the well-tilled Fiji Islands, a pregnant girl is strangled and her seducer slain. The women make a practice of drinking medicated waters to produce sterility. Failing in this, the majority kill their children either before or after birth. In the island of Vanua Levu infanticide reaches from one-half to two-thirds of all children conceived; here it is reduced to a system and gives employment to professional murderers of babies, who hover like vultures over every child-bed. All destroyed after birth are females.[204] And yet here, as on many other islands of Melanesia and Polynesia, such offspring as are spared are treated with foolish fondness and indulgence.[205] The two facts are not incompatible.

Approved by the state.

Geographic conditions made infanticide a state measure in these crowded communities. On the small coral atolls, where the food supply was scantest, it was enforced by law. On Vaitupu, in the Ellice group, only two children were allowed to a couple; on Nukufelau, only one. Any violation of this unique sumptuary law was punished by a fine.[206] On the congested Gilbert atolls, a woman rarely had more than two children, never more than three. Abortion, produced by a regular midwife, disposed of any subsequent offspring. Affection for children was very strong here, and infanticide of the living was unknown.[207] In Samoa, also, Turner found the practice restricted to the period before birth; but in Tahiti and elsewhere it was enforced by the tribal village authorities on the born and unborn.[208] In pre-Christian Hawaii, two-thirds of all children, and especially girls, were killed by their parents either before or after birth. The result was a decay of the maternal instinct and the custom of farming out children to strangers. This contributed to the excess of infant mortality, the degeneration of morals and the instability of the family.[209] So in Japan the pressure of population led to infanticide and the

sale of daughters to a life of ignominy, which took them out of the child-bearing class.[210] Nor was either custom under the ban.

The result is a deterioration of morals, an invasion of the family bond, and a decay of the finer sentiments therewith connected. Captain Cook in 1770 found in Tahiti *Eareeoie* or *Arreoys* societies, which were free-love associations including in their number "over half of the better sort of the inhabitants." The children begotten of these promiscuous unions were smothered at birth. Obscene conversations, indecent dances and frank unchastity on the part of girls and women were the attendant evils of these loose morals.[211] Cook was sure that "these societies greatly prevent the increase of the superior classes of people of which they are composed." Malthus reports a similar association in the Marianne Islands, distinguished by a similar name, devoted to race suicide.[212] Everywhere in Oceanica marriage is unstable, and with few exceptions unchastity prevails. Stevenson thinks it chiefly accountable for the decline of population in the islands.[213] However, in the detailed *taboos* laid upon women in Fiji, Marquesas, and other Polynesian islands we have the survival of an early measure to increase reserve between the sexes, long after regard for chastity has vanished.[214]

Low valuation of human life.

The constant pressure of population upon the limits of subsistence throughout Oceanica has occasioned a low valuation of human life. Among natural peoples the helpless suffer first. The native Hawaiians, though a good-natured folk, were relentless towards the aged, weak, sick, and insane. These were frequently stoned to death or allowed to perish of hunger.[215] In Fiji, the aged are treated with such contempt, that when decrepitude or illness threatens them, they beg their children to strangle them, unless the children anticipate the request.[216] In Vate (or Efate) of the New Hebrides, old people are buried alive, and their passage to another world duly celebrated by a feast.[217] However, in the Tonga Islands and in New Zealand, great respect and consideration are shown the aged as embodying experience.[218] The harsher custom recalls an ancient law of Aegean Ceos,

which ordained that all persons over sixty years of age should be compelled to drink hemlock, in order that there might be sufficient food for the rest.[219]

Many customs of Oceanica can be understood only in the light of the small value attached to human life in this island world. The overpopulation which lies back of their colonization explains the human sacrifices in their religious orgies and funeral rites, as also the widespread practice of cannibalism. This can be traced in vestigial forms, or as an occasional or habitual custom from one end of the Pacific to the other, from the Marquesas to New Guinea and from New Zealand to Hawaii. All Melanesia is tainted with it, and Micronesia is not above suspicion. The cause of this extensive practice, Stevenson attributes to the imminence of famine and the craving for flesh as food in these small islands, which are destitute of animals except fowls, dogs and hogs. In times of scarcity cannibalism threatens all; it strikes from within or without the clan.[220] Ratzel leans to the same opinion.[221] Captain Cook thought the motive of a good full meal of human flesh was often back of the constant warfare in New Zealand, and was sometimes the only alternative of death by hunger. Cannibalism was not habitual in the Tonga Islands, but became conspicuous during periods of famine.[222] In far-away Tierra del Fuego, where a peculiarly harsh climate and the low cultural status of the natives combine to produce a frightful infant mortality and therefore to repress population, cannibalism within the clan is indulged in only at the imperious dictate of mid-winter hunger. The same thing is true in the nearby Chonos Archipelago.[223]

Cannibalism in islands.

These are the darker effects of an island habitat, the vices of its virtues. That same excessive pressure of population which gives rise to infanticide also stimulates agriculture, industry and trade; it develops ingenuity in making the most of local resources, and finally leads to that widespread emigration and colonization which has made islanders the great distributors of culture, from Easter Isle to Java and from ancient Crete to modern England.

NOTES TO CHAPTER XIII

1. Table of areas of peninsulas and islands, Justus Perthes, *Taschen Atlas*, p. 9. Gotha, 1905.

2. H. J. Mackinder, Britain and the British Seas, pp. 105-108. London, 1904.

3. W. Deecke, Italy, p. 45. London, 1904.

4. Journey of William de Rubruquis, pp. 187, 204. Hakluyt Society Publication, London, 1903.

5. Archibald Little, The Far East, pp. 35, 45. Oxford, 1905.

6. Strabo, Book X, chap. II, 19.

7. Ratzel, *Die Erde und das Leben*, Vol. I. pp. 312-313. Leipzig, 1901.

8. Charles H. Hawes, In the Uttermost East, p. 103. New York, 1904.

9. W. E. Griffis, The Mikado's Empire, Vol. I, pp. 26-27. New York, 1904.

10. Darwin, Origin of Species, Vol. II, chap. XIII, p. 178. New York, 1895.

11. A. R. Wallace, Geographical Distribution of Animals, Vol. II, p. 61. London, 1876.

12. Darwin, Origin of Species, Vol. II, chap. XIII, p. 183. New York, 1895.

13. *Ibid.*, Vol. II, chap. XIII, pp. 178-180.

14. A. R. Wallace, Island Life, pp. 331-332, 338-389, 393, 402, 409-410, 449, 456-463. New York, 1893.

15. *Ibid.*, 342, 370-371.

16. Emerson, English Traits, chap. VI.

17. Capt. F. Brinkley, Japan, Vol. I, p. 50. Boston and Tokyo, 1901.

18. W. E. Griffis, The Mikado's Empire, Vol. I, p. 198. New York, 1904.

19. Arthur M. Knapp, Feudal and Modern Japan, Vol. I, pp. 211, 220, 221. New York, 1900.

20. Emerson, English Traits, chap. III.

21. Ronald M Burrows, The Discoveries in Crete, pp. 134-136, 141, 162, 177. New York, 1907.

22. *Ibid.*, chapters IV and V.

23. *Ibid.*, p. 179. Angelo Mosso, The Palaces of Crete, pp. 46, 54-55, 61-62, 81. London, 1907.

24. Ronald M. Burrows, The Discoveries in Crete, pp. 64-65, 82, 84, 147-150. New York, 1907. James Baikie, The Sea Kings of Crete, pp. 235-237. London, 1910.

25. J. B. Bury, History of Greece, pp. 8-10. New York, 1909.

26. R. M. Burrows, The Discoveries in Crete, pp. 36, 44-46, 50-51, 85, 149-150, 179. New York, 1907.

27. *Ibid.*, 136-137.

28. Private communication from Mrs. Harriet Boyd Hawes.

29. Recent Discoveries in Crete, *The Chautauquan*, Vol. 43, p. 220. 1906. R. M. Burrows, The Discoveries in Crete, pp. 103, 162. New York, 1907.

30. Grote, History of Greece, Vol. IV, pp. 244-245. New York, 1857.

31. Strabo, Book XIV, chap. II, 7-13.
32. Strabo, Book VII, chap. VI, 16.
33. A. P. Niblack, Coast Indians of Southern Alaska and Northern British Columbia, pp. 382-384. House Misc. Doc. 142. Washington. Dr. George Dawson, The Haidas, *Harper's Monthly*, August, 1882.
34. Ratzel, History of Mankind, Vol. I, p. 180. London, 1896-1898.
35. Article, The National Academy of Sciences, *Nation*, Vol. LXXX, p. 328. 1905. Capt. James Cook, A Voyage Towards the South Pole, 1772-1775, Vol. I, p. 284, 288-296. London. 1777. George Forster, Voyage Round the World, Vol. I, pp. 566-567, 580-581, 586-591. London, 1777.
36. G. Sergi, The Mediterranean Race, chap. VII. London and New York, 1901. Helmolt, History of the World, Vol. IV, pp. 222-223. New York, 1902-1906.
37. Charles W. Hawes, The Uttermost East, pp. 113-116. New York, 1904.
38. William Bright, Early English Church History, pp. 224-234. Oxford. 1897. P. W. Joyce, Social History of Ireland, Vol. I, pp. 320, 389, 390. London, 1903.
39. W. H. Dall, Masks and Labrets, p. 137. Third Annual Report of Bureau of Ethnology, Washington, 1884.
40. A. P. Niblack, Coast Indians of Southern Alaska and Northern British Columbia, pp. 236-382. Washington.
41. H. R. Mill, International Geography, p. 187. New York, 1902.
42. A. B. Ellis, The West African Islands, p. 202. London, 1885. History of the Conquest of the Canaries, Introduction, pp. XIII, XVII, XXXIII, XXXIV. Hakluyt Society, London, 1872.
43. Henry Gannett, People of the Philippines, Report of the Eighth International Geographical Congress, Washington, 1904.
44. H. R. Mill, International Geography, p. 549. New York, 1903.
45. W. Deecke, Italy, p. 451. London, 1904.
46. Nelson Annandale, The Faroes and Iceland, p. 14. Oxford, 1905.
47. J. Partsch, Central Europe, Map, p. 131, and p. 133. London, 1903.
48. W. Z. Ripley, Races of Europe, pp. 272, 304, 305, 317. New York, 1899.
49. *Ibid.*, p. 303.
50. *Ibid.*, Map, p. 251, and p. 253.
51. W. Deecke, Italy, p. 451. London, 1904.
52. Darwin, Origin of Species, Vol. II, chap. XIII, pp. 179, 180, 184. New York, 1895. A. R. Wallace, Island Life, pp. 284-285, 290-291. London and New York, 1892.
53. H. R. Mill, International Geography, p. 554. New York, 1902.
54. Ratzel, *Die Erde und das Leben*, Vol. I, p. 364. Leipsig, 1901.
55. Ratzel, History of Mankind, Vol. I, pp. 454-456. London, 1896-1898. H. R. Mill, International Geography, p. 1018. New York, 1902.
56. Ratzel, History of Mankind, Vol. I, p. 456. London, 1896-1898.
57. Nordenskiold, Voyage of the Vega, pp. 563, 588, 591. New York, 1882.
58. A. R. Wallace, Malay Archipelago, pp. 368, 380, 381. New York, 1869.
59. Richard Semon, In the Australian Bush, pp. 277-278. London, 1899.

60. Strabo, Book VIII, chap. VI, 16.
61. Pliny, *Naturalis Historia*, Book IV, 12.
62. *Ibid.*, Book VI, chap. 32.
63. Hereford George, Historical Geography of the British Empire, pp. 130-133. London, 1904.
64. Dietrich Schaefer, *Die Hansestadte und König Waldemar von Dänemark*, pp. 37-44. Jena, 1879.
65. Hereford George, Historical Geography of the British Empire, pp. 127-128. London, 1904.
66. The Danish West Indies, pp. 2767, 2769. Summary of Commerce and Finance for January, 1902. Washington.
67. E. A. Freeman, Historical Geography of Europe, pp. 22, 29, 37, 65, 77, 384, 412-415, 419, 426, 465. London, 1882.
68. *Ibid.*, 35, 48, 49, 54-55, 80, 379, 382-385, 409, 411, 556, 557. E. A. Freeman, Sicily, chaps. I, II. New York and London, 1894.
69. W. Deecke, Italy, pp. 132, 445. London, 1904. W. Z. Ripley, Races of Europe, p. 271. New York, 1899.
70. Elisée Reclus, Europe, Vol. I, p. 320. New York, 1886.
71. W. Deecke, Italy, pp. 448, 453. London, 1904.
72. H. R. Mill, International Geography, p. 367. New York, 1902.
73. David Murray, Story of Japan, p. 156. New York, 1894.
74. Henry Dyer, Dai Nippon, p. 61. New York, 1904.
75. E. A. Freeman, Historical Geography of Europe, pp. 55, 245, 252, 257, 258, 264, 556. London, 1882.
76. Thucydides I, 114; IV, 57-59, 62.
77. *Ibid.*, IV, 120-122.
78. Aristotle, Politics, Book XI, chaps. 7, 8.
79. J. T. Bent, The Bahrein Islands in the Persian Gulf, *Proceedings of the Roy. Geog. Soc.*, Vol. XII, p. 1. London, 1890.
80. W. F. Walker, The Azores, p. 22. London, 1886.
81. A. B. Ellis, West African Islands, p. 203. London, 1885.
82. Strabo, Book III, chap. V, 1.
83. H. J. Mackinder, Britain and the British Seas, pp. 10-12. London, 1904.
84. W. Z. Ripley, Races of Europe, pp. 301, 311. New York, 1899.
85. H. B. George, Historical Geography of the British Empire, pp. 100, 103, 104. London, 1904.
86. J. R. Green, The Making of England, Vol. II, pp. 30, 31, 35. London, 1904.
87. James Bryce, Holy Roman Empire, p. 185. London, 1890. George Webbe Dasent, The Story of Burnt Njal, or Life in Iceland at the End of the Tenth Century, Vol. I, pp. LII-LXVIII. Edinburgh, 1861.
88. Dahlmann, *Geschichte von Dänemark*, Vol. II, pp. 265-268. Hamburg, 1857. James Bryce, Introduction to Helmolt, History of the World, Vol. I, p. xxii. New York, 1902.
89. George T. Stokes, Ireland and the Celtic Church, pp. 206-230. London, 1886.
90. J. R. Green, History of the English People, Vol. I, pp. 48-49.
91. Recent Discoveries in Crete, *The Chautauquan*, Vol. XLIII, p. 220. 1906. Angelo Mosso, The Palaces of Crete, p. 325. London, 1907.
92. Helmolt, History of the World, Vol. II, pp. 496-504. New York, 1902-6.

93. David Murray, Story of Japan, p. 156. New York, 1894. W. E. York, 1902-6.
Griffis, The Mikado's Empire, Vol. I, pp. 176-181. New York, 1903.
94. J. R. Green, History of the English People, Vol. I, pp. 30-33. New York.
95. Capt. F. Brinkley, Japan, Vol. I, p. 8. Boston and Tokyo, 1901.
96. Capt. A. T. Mahan, Influence of Sea Power upon History, p. 29. New York, 1902.
97. H. J. Mackinder, Britain and the British Seas, pp. 341, 343. London, 1904.
98. Ratzel, *Die Erde und das Leben*, Vol. I, p. 362. Leipzig, 1901.
99. W. E. Griffis, The Mikado's Empire, Vol. I, p. 258. New York, 1903.
100. W. F. Walker, The Azores, p. 2. London, 1886.
101. F. W. Wines, Punishment and Reformation, pp. 166-167, 184-188. New York, 1895.
102. Tacitus, Annals, Book I, chap. XIII.
103. *Ibid.*, Book IV, chaps. III, XV. Book II, chap. XIX.
104. W. Deecke, Italy, pp. 270, 410, 413, 448, 450. London, 1904.
105. Longmans Gazetteer of the World, Article Easter Isle.
106. Darwin and Fitzroy, Voyage of the Beagle, Vol. II, p. 59. London, 1839.
107. *Ibid.*, Vol. II, pp. 490-492.
108. A. B. Ellis, West African Islands, pp. 1-3. London, 1885.
109. Longmans Gazetteer of the World, Andaman and Nicobar.
110. Darwin and Fitzroy, Voyage of the Beagle, Vol. III, p. 245. London, 1839.
111. A. B. Ellis, West African Islands, pp. 72, 73, 241. London, 1885.
112. Charles H. Hawes, The Uttermost East, p. 345. New York, 1904.
113. The Dry Tortugas, *Harper's Monthly*, Vol. 37, p. 260. 1868.
114. A. R. Wallace, Island Life, pp. 332, 371, 410, 457, 460-461, 464. London, 1892.
115. *Ibid.*, pp. 407, 408, 410, 462.
116. Census of the Philippine Islands of 1903, Vol. I, p. 456. Washington, 1905.
117. Ratzel, History of Mankind, Vol. III, pp. 446, 449, 451. London, 1896-1898.
118. W. E. Griffis, The Mikado's Empire, Vol. I, pp. 30-31. New York, 1903.
119. W. Z. Ripley, Races of Europe, p. 271. New York, 1899.
120. Hereford George, Historical Geography of the British Empire, pp. 106-107. London, 1904.
121. Nelson Annandale, The Faroes and Iceland, pp. 19, 20, 33, 37, 64-65, 148, 193-194, 198, 206, 208. Oxford, 1905.
122. Capt. James Cook, Voyage to the Pacific Ocean, 1776-1780, Vol. II, pp. 69-70, 75-78. New York, 1796.
123. Williams and Calvert, Fiji and the Fijians, pp. 5-7, 14, 15. New York, 1859. Basil Thomson, The Fijians, pp. 23-32. London, 1908.
124. Mahler, *Siedelungsgebiete und Siedelungslage in Oceanien.* Melching *Staatenbildung in Melanesien*, Leipzig, Dissertations, 1897.
125. H. R. Mill, International Geography, p. 570. New York, 1902.

126. Aristotle, Politics, Book II, chap. 8.
127. Ratzel, History of Mankind, Vol. I, 297-299. London, 1896-1898.
128. *Ibid.*, Vol. I, Map, p. 145, pp. 234, 251.
129. *Ibid.*, Vol. I, pp. 204-214.
130. Justus Perthes, *Taschen Atlas*, p. 67. Gotha, 1910.
131. *Ibid.*, p. 60.
132. *Ibid.*, p. 37.
133. *Ibid.*, p. 51.
134. *Ibid.*, pp. 37, 67.
135. Lippincott's New Gazetteer of the World, Madeira and Azores.
136. R. L. Stevenson, The South Seas, p. 37. New York, 1903.
137. *Ibid.*, p. 222.
138. J. S. Jenkins, United States Exploring Squadron under Capt. Wilkes, 1838-1842, pp. 401-403. New York, 1855.
139. Justus Perthes, *Taschen Atlas*, p. 70. Gotha, 1905.
140. Ratzel, History of Mankind, Vol. I, pp. 158, 179. London, 1896-1898.
141. J. S. Jenkins, United States Exploring Squadron under Capt. Wilkes, 1838-1842, p. 462. New York, 1855.
142. *Ibid.*, p. 314.
143. Nelson Annandale, The Faroes and Iceland, pp. 93-129. Oxford, 1905.
144. Elisée Reclus, Europe, Vol. IV, p. 344. New York, 1886.
145. John Murray, Handbook to Greece and the Ionian Isles, p. 329. London, 1872.
146. Hereford George, Historical Geography of the British Empire, p. 119. London, 1904.
147. W. Deecke, Italy, pp. 449-450. London, 1904.
148. *Ibid.*, pp. 447-448, 410-411.
149. Statistics from Justus Perthes, *Taschen Atlas*, p. 65. Gotha, 1910.
150. Longmans Gazetteer of the World, Amboina.
151. Census of the Philippine Islands of 1903. Vol. II, p. 30. Washington, 1905.
152. Justus Perthes, *Taschen Atlas*, pp. 75, 77. Gotha, 1910.
153. Hereford George, Historical Geography of the British Empire, pp. 238-240. London, 1904.
154. D. G. Hogarth, The Nearer East, pp. 243-244. London, 1902.
155. Dr. A. Philippson, The Greek Islands of the Aegean, *Scottish Geographical Magazine*, Vol. XIII, p. 489. 1897.
156. J. T. Brent, The Bahrein Islands in the Persian Gulf, *Proceedings of the Roy. Geog. Society*, Vol. XII, pp. 1-19, 1890; and Justus Perthes, *Taschen Atlas*, p. 55. Gotha, 1910.
157. Parkman, Pioneers of France in the New World, pp. 26-32. Boston, 1900.
158. *Ibid.*, pp. 253-262.
159. Thucydides, I, 100, 101. Herodotus, VII, 108, 109.
160. Grote, History of Greece, Vol. III, pp. 195, 197. New York, 1857.
161. *Ibid.*, Vol. IV, pp. 30-33.
162. Capt. James Cook, Voyage to the Pacific Ocean, 1776-1780, Vol. II, pp. 85-86, 88. New York, 1796.

163. George Forster, Voyage Round the World, Vol. I, p. 274, 280, 281, 285. London, 1777.

164. J. S. Jenkins, United States Exploring Squadron under Capt. Wilkes, 1838-1842, p. 402. New York, 1855.

165. George Forster, Voyage Round the World, Vol. I, pp. 571, 578, 587, 595. London, 1777.

166. R. H. Codrington, The Melanesians, pp. 303-304. Oxford, 1891.

167. William Mariner, Natives of the Tonga Islands, Vol. II, p. 30. Edinburgh, 1827.

168. Capt. James Cook, Voyage to the Pacific Ocean, 1776-1780, Vol. I, p. 302. New York, 1796.

169. Ratzel, History of Mankind, Vol. I, pp. 254-256. London, 1896-1898.

170. Williams and Calvert, Fiji and the Fijians, pp. 8, 46-49. New York, 1859. Basil Thomson, The Fijians, p. 339. London, 1908.

171. H. R. Mill, International Geography, pp. 562, 564, 572. New York, 1902.

172. Census of the Philippine Islands of 1903, Vol. IV, pp. 1-2. Washington, 1905.

173. Strabo, Book VIII, chap. VI, 16.

174. W. Deecke, Italy, pp. 380, 448-450. London, 1904.

175. *Ibid.*, p. 452.

176. Dr. A. Philippson, The Greek Islands of the Aegean, *Scottish Geographical Magazine*, Vol. XIII, pp. 489-490. 1897. John Murray, Handbook to Greece and the Ionian Isles. London, 1872.

177. W. E. Griffis, The Mikado's Empire, Vol. I, pp. 17-20. New York, 1904.

178. Henry Dyer, Dai Nippon, pp. 238-244. New York, 1903. Arthur M. Knapp, Feudal and Modern Japan, Vol. I, pp. 78, 79, 116, 117. New York, 1900.

179. Alfred Stead, Japan by the Japanese, p. 413. London, 1904.

180. Sir Rutherford Alcock, Three Years in Japan, Vol. I, pp. 83, 84, 283-286. New York, 1868.

181. H. D. Traill, Social England, Vol. II, pp. 243-246, 547-554; Vol. III, pp. 114-121, 239-241, 253-255, 351-359. London, 1905.

182. Thucydides, Book I, 4. Aristotle, Politics, Book II, chap. 7, 2. Herodotus, Book VII, 170.

183. Thucydides, Book IV, chaps. 84, 88.

184. Census of the Philippine Islands in 1903, Vol. I, pp. 412-414. Washington, 1905.

185. Richard Semon, In the Australian Bush, p. 517. London, 1899.

186. Ratzel, History of Mankind, Vol. I, pp. 174-177. London, 1896-98.

187. *Ibid.*, Vol. I, pp. 178-179.

188. *Ibid.*, Vol. I, pp. 157-161, 165.

189. Henry Dyer, Dai Nippon, pp. 250-257, 266. New York, 1904.

190. Elisée Reclus, Europe, Vol. I, p. 337. New York, 1886. Hereford George, Historical Geography of the British Empire, pp. 118-119. London, 1904.

191. D. G. Hogarth, The Nearer East, p. 244. London, 1902.

192. Dr. A. Philippson, The Greek Islands of the Aegean, *Scottish Geographical Magazine*, Vol. XIII, p. 488. 1897.

193. Jensen, *Die Nordfrieschen Inseln*, p. 133. 1891.

194. Malthus, Essay on Population, Book I, chap. V, p. 67. London, 1826. This whole chapter on "Checks to Population in the Islands of the South Seas" is valuable.

195. Boyd Alexander, From the Niger to the Nile, Vol. II, pp. 108-110. London, 1907.

196. History of the Conquest of the Canaries, p. xxxix. Hakluyt Society, London, 1872.

197. Ratzel, History of Mankind, Vol. I, pp. 273, 299-300. London, 1896-98.

198. *Ibid.*, Vol. I, pp. 270, 274-275. Adolf Marcuse, *Die Hawaiischen Inseln*, p. 108. Berlin, 1894.

199. R. L. Stevenson, The South Seas, pp. 138-139. New York, 1903.

200. George Forster, Voyage Round the World, Vol. I, p. 564, 569, 572, 577, 584, 586, 596. London, 1777.

201. Westermarck, History of Human Marriage, pp. 116, 441, 462-463, 450-452, 454, 457. London, 1891.

202. Ratzel, History of Mankind, Vol. I, p. 270. London, 1896-1898.

203. R. H. Codrington, The Melanesians, p. 229. Oxford, 1891.

204. Basil Thomson, The Fijians, pp. 221-227. London, 1908. Williams and Calvert, Fiji and the Fijians, pp. 132, 142. New York, 1859.

205. *Ibid.*, p. 130. R. L. Stevenson, The South Seas, pp. 38, 40. New York, 1903.

206. *Ibid.*, p. 38.

207. J. S. Jenkins, United States Exploring Squadron under Capt. Wilkes, 1838-1842, pp. 404-405. New York, 1855.

208. Ratzel, History of Mankind, Vol. I, pp. 270, 299. London, 1896-98.

209. Adolf Marcuse, *Die Hawaiischen Inseln*, p. 109. Berlin, 1894.

210. G. W. Knox, Japanese Life in Town and Country, p. 188. New York, 1905.

211. Capt. Cook's Journal, First Voyage Round the World in the Endeavor, 1768-1771, pp. 95, 96. Edited by W. J. L. Wharton. London, 1893.

212. Malthus, Essay on Population, Book I, chap. V.

213. R. L. Stevenson, The South Seas, p. 39. New York, 1903.

214. *Ibid.*, p. 52.

215. Adolf Marcuse, *Die Hawaiischen Inseln*, p. 109. Berlin, 1894.

216. Williams and Calvert, Fiji and the Fijians, pp. 144-146. New York, 1859.

217. Ratzel, History of Mankind, Vol. I, p. 330. London, 1896-1898.

218. William Mariner, Natives of the Tonga Islands, Vol. II, pp. 95, 134-135. Edinburgh, 1827. Capt. Cook's Journal, First Voyage Round the World in the Endeavor, 1768-1771, pp. 220-221. Edited by W. J. L. Wharton. London, 1893.

219. Strabo, Book X, chap. V, 6.

220. R. L. Stevenson, The South Seas, pp. 98-104. New York, 1903.

221. Ratzel, History of Mankind, Vol. I, pp. 297-299. London, 1896-1898.

222. William Mariner, Natives of the Tonga Islands, Vol. II, pp. 108-109. Edinburgh, 1827.

223. Darwin and Fitzroy, Voyage of the Beagle, Vol. II, pp. 183, 189-190. London, 1839.

CHAPTER XIV

PLAINS, STEPPES AND DESERTS

Relief of the sea floor.

ANTHROPO-GEOGRAPHY has to do primarily with the forms and relief of the land. The relief of the sea floor influences man only indirectly. It does this by affecting the forms of the coast, by contributing to the action of tides in scouring out river estuaries, as on the flat beaches of Holland and England, by determining conditions for the abundant littoral life of the sea, the fisheries of the continental shelf which are factors in the food quest and the distribution of settlements. Moreover, the ocean floor enters into the problem of laying telegraph cables, and thereby assumes a certain commercial and political importance. The name of the Telegraph Plateau of the North Atlantic, crossed by three cables, points to the relation between these and submarine relief. So also does the erratic path of the cable from southwestern Australia to South Africa via Keeling Island and Mauritius.

Submarine reliefs have yet greater significance in their relation to the distribution of the human race over the whole earth; for what is now a shallow sea may in geologically recent times have been dry land, on which primitive man crossed from continent to continent. It is vital to the theory of the Asiatic origin of the American Indian that in Miocene times a land bridge spanned the present shallows of Bering Sea. Hence the slight depth of this basin has the same bio-geographical significance as that of the British seas, the waters of the Malay Archipelago, and the Melanesian submarine platform. The impressive fact about "Wallace's Line" is the depth of the narrow channel which it follows through Lombok and Macassar Straits and which, in recent geological times, defined the southeastern shore of Asia. In all these questions of former land connection, anthropo-geography follows the lead of bio-geography, whose deduc-

tions, based upon the dispersal of countless plant and animal forms, point to the paths of human distribution.

Mean elevations of the continents.

The mean elevation of the continents above sea level indicates the average life conditions of their populations as dependent upon relief. The 1010 meters (3313 feet) of Asia indicate its predominant highland character. The 330 meters (1080 feet) representing the average height of Europe, and the 310 meters (1016 feet) of Australia indicate the preponderance of lowlands. Nevertheless, anthropo-geography rarely lends itself to a mathematical statement of physical conditions. Such a statement only obscures the facts. The 660 meters (2164 feet) mean elevation of Africa indicates a relief higher than Europe, but gives no hint of the plateau character of the Dark Continent, in which lowlands and mountains are practically negligible features; while the almost identical figure (650 meters or 2132 feet) for both North and South America is the average derived from extensive lowlands in close juxtaposition to high plateaus capped by lofty mountain ranges. Such mathematical generalizations indicate the general mass of the continental upheaval, but not the way this mass is divided into low and high reliefs.[1]

The method of anthropo-geography is essentially analytical, and therefore finds little use for general orometric statements, which may be valuable to the science of geo-morphology with its radically different standpoint. For instance, geo-morphology may calculate from all the dips and gaps in the crest of a mountain range the average height of its passes. Anthropo-geography, on the other hand, distinguishes between the various passes according as they open lines of greater or less resistance to the historical movement across the mountain barriers. It finds that one deep breach in the mountain wall, like the Mohawk Depression[2] and Cumberland Gap in the Appalachian system,[3] Truckee Pass in the Sierra Nevada[4] and the Brenner in the Alps,[5] has more far-reaching and persistent historical consequences than a dozen high-laid passes that only notch the crest. Pack-trail, road and railroad seek the former, avoid the latter; one draws from a wide radius, while the other serves a restricted local need. Therefore anthropo-geography, instead of clumping the

passes, sorts them out, and notes different relations in each.

Distribution of reliefs.

In continents and countries the anthropo-geographer looks to see not what reliefs are present, but how they are distributed; whether highlands and lowlands appear in unbroken masses as in Asia, or alternate in close succession as in western Europe; whether the transition from one to the other is abrupt as in western South America, or gradual as in the United States. A simple and massive land structure lends the same trait of the simple and massive to every kind of historical movement, because it collects the people into large groups and starts them moving in broad streams, as it were. This fact explains the historical preponderance of lowland peoples and especially of steppe nomads over the small, scattered groups inhabiting isolated mountain valleys. The island of Great Britain illustrates the same principle on a small scale in the turbid, dismembered history of independent Scotland, with its Highlanders and Lowlanders, its tribes and clans separated by mountains, gorges, straits, and fiords,[6] in contrast to the smoother, unified course of history in the more uniform England. Carl Ritter compares the dull uniformity of historical development and relief in Africa with the variegated assemblage of highlands and lowlands, nations and peoples, primitive societies and civilized states in the more stimulating environment of Asia.[7]

Homologous relief and homologous histories.

The chief features of mountain relief reappear on a large scale in the continents, which are simply big areas of upheaval lifted above sea level. The continents show therefore homologous regions of lowlands, uplands, plateaus and mountains, each district sustaining definite relations to the natural terrace above or below it, and displaying a history corresponding to that of its counterpart in some distant part of the world, due to a similarity of relations. This appears first in a specialization of products in each tier and hence in more or less economic interdependence, especially where civilization is advanced. The tendency of conquest to unite such obviously complementary districts is persistent. Hence the Central Highland of Asia is fringed with low peripheral lands like Manchuria, China, India and Mesopotamia, into whose history it has repeatedly entered as a disturbing force.

All the narrow Pacific districts of the Americas from Alaska to Patagonia are separated by the Cordilleras from the lowlands on the Atlantic face of the continents; all reveal in their history the common handicap arising from an overwhelming preponderance of plateau and mountain and a paucity of lowlands. Colombia, Ecuador and Peru have in the past century been stretching out their hands eastward to grasp sections of the bordering Amazon lowlands, where today is the world's great field of conflicting boundary claims. Chile would follow its geographical destiny if it should supplement its high, serrated surface by the plateaus and lowlands of Bolivia, as Cyrus the Persian married the Plateau of Iran to the plains of the Tigris and Euphrates, and Romulus joined the Alban hills to the alluvial fields of the Tiber.

Anthropogeography of lowlands.

Well-watered lowlands invite expansion, ethnic, commercial and political. In them the whole range of historical movements meet few obstacles beyond the waters gathering in their runnels and the forests nourished in their rich soils. Limited to 200 meters (660 feet) elevation, lowlands develop no surface features beyond low hills and undulating swells of land. Uniformity of life conditions, monotony of climate as of relief, except where grades of latitude intervene to chill or heat, an absence of natural boundaries, and constant encouragement to intercourse, are the anthropo-geographic traits of lowlands, as opposed to the arresting, detaining grasp of mountains and highland valleys. Small, isolated lowlands, like the mountain-rimmed plains of Greece and the Aegean coast of Asia Minor, the Nile flood-plain, Portugal, and Andalusia in Spain, may achieve precocious and short-lived historical importance, owing to the fertility of their alluvial soils, their character as naturally defined districts, and their advantageous maritime location; but while in these restricted lowlands the telling feature has been their barrier boundaries of desert, mountains and sea, the vast level plains of the earth have found their distinctive and lasting historical importance in the fact of their large and unbounded surface.

Such plains have been both source and recipient of every form of historical movement. Owing to their prevailing fit-

ness for agriculture, trade and intercourse, they are favored regions for the final massing of a sedentary population. The areas of greatest density of population in the world, harboring 150 or more to the square kilometer (385 to the square mile), are found in the lowlands of China, the alluvial plains of India, and similar level stretches in the Neapolitan plain and Po Valley, the lowlands of France, Germany, Holland, Belgium, England and Scotland. Such a density is found in upland districts (660 to 2000 feet, or 200 to 600 meters) bordering agricultural lowlands, only where industries based upon mineral wealth cause a concentration of population. [See maps pages 8, 9, 559.]

Extensive plains unfavorable to early development.

The level or undulating surface of extensive lowlands is not favorable to the early development of civilization. Not only do their wide extent and absence of barriers postpone the transition from nomadism to sedentary life, but their lack of contrasting environments and contrasted developments, which supplement and stimulate, puts chains upon progress. A flat, monotonous relief produces a monotonous existence, necessarily one-sided, needing a complement in upland or mountain. To the pioneer settlers in the lowlands of Missouri the Ozark Plateau was a boon, because its streams furnished water-power for much needed saw and flour mills. Treeless Egypt even before 2500 B. C. depended upon the cedars of the Lebanon Mountains for the construction of its ships; so that the conquest of Lebanon, begun by Thutmose I. and completed by Thutmose III. in about 1470 B. C., had a sound geographical basis.[8] Similarly the exploitation of the copper, malachite, turquoise and lapis-lazuli of Mount Sinai, minerals not found in the Nile plain, led the ancient Egyptians into extensive mining operations there before 3000 B. C., and resulted in the establishment of Egyptian political supremacy in 2900 B. C., as a measure to protect the mines against the depredations of the neighboring Bedouin tribes.[9] Lowlands lack the distinctive advantages of highlands found in diversity of climate, water-power, generally in more abundant forests and minerals. The latter are earlier discovered and worked in the tilted strata of mountains and uplands.

Plain countries suffer particularly from a paucity of varied geographic conditions and of resulting contrasts in their population. Their national characters tend to be less richly endowed; their possibilities for development are blighted or retarded, because even racial differences are rapidly obliterated in the uniform geographic environment. A small diversified country like Crete, Great Britain, Italy, Portugal, Saxony, or Japan, is a geographical *multum in parvo*. The western half of Europe bears the same stamp, endowing each country and nation with marked individuality born of partial isolation and a varied combination of environment. The larger eastern half of the continent embraced in the plains of Poland and Russia shows monotony in every aspect of human life. This comes out anthropologically in the striking similarity of head-form found everywhere north and east of the Carpathian Mountains, except in the secluded districts of Lithuania and Crimea, which shelter remnants of distinct races. Over all this vast territory the range of cephalic variation is only five units or one-third that in the restricted but diversified territory of western Europe. Italy, only one-eighteenth the size of European Russia, has a range of fifteen units, reflecting in the variety of its human types the diversity of its environment.[10]

Conditions for fusion in plains.

In the plains geography makes for fusion. Russia shows this marked homogeneity, despite a motley collection of race ingredients which have entered into the make-up of the Russian people. Without boundary or barrier, the country has stood wide open to invasion; but the intruders found no secluded corners where they could entrench themselves and preserve their national individuality.[11] They dropped into a vast melting-pot, which has succeeded in amalgamating the most diverse elements. The long-drawn Baltic-North Sea plain of Europe shows the same power to fuse. Here is found a prevailing blond, long-headed stock from the Gulf of Finland to the Somme River in France.[12] Yet this natural boulevard has been a passway for races. Prehistoric evidences show that the dark, broad-headed Celtic folk once overspread this plain east to the Weser;[13] it still tends to trickle down from the southern uplands into the Baltic lowland, and modify

the Teutonic type along its southern margin throughout Germany.[14] The Slavs in historic times reached as far west as the Weser, while the expansion of the Teutons has embraced the whole maritime plain from Brittany to the Finnish Gulf. Here it is difficult to draw an ethnic boundary on the basis of physical differences. The eastern Prussians are Slavonized Teutons, and the adjacent Poles seem to be Teutonized Slavs, while the purest type of Letto-Lithuanian at the eastern corner of the Baltic coast approximates closely to the Anglo-Saxon type which sprang from the western corner.[15] A similar amalgamation of races and peoples has taken place in the lowlands of England and Scotland, while diversity still lingers in the highlands. In the Lowlands of Scotland, Picts in small numbers, Britons, Scots from Ireland, Angles, Frisians, Northmen and Danes have all been blended and assimilated in habits, customs and speech.[16]

Retardation due to monotonous environment.

This uniformity is advantageous to early development in a small plain, because of the juxtaposition of contrasted environments, but is stultifying to national life in an immense expanse of monotony like that of Russia. Here sameness leaves its stamp on everything. Language is differentiated with only two dialects, that of the Great Russians of the north and the Little Russians of the southern steppes, who were so long exposed to Tartar influences. Most other languages of Europe, though confined to much smaller areas, show far greater diversity.[17] While the Russian of Kazan or Archangel can converse readily with the citizen of Riga or St. Petersburg, Germans from highland Bavaria and Swabia are scarcely intelligible to Prussian and Mecklenberger. And whereas Germany a few decades ago could count over a hundred different kinds of national dress or *Tracht*, Great Russia alone, with six times the area, had only a single type with perhaps a dozen slight variations. Leroy-Beaulieu comments upon this eternal sameness. "The cities are all alike; so are the peasants, in looks, habits, in mode of life. In no country do people resemble one another more; no other country is so free from political complexity, those oppositions in type and character, which even yet we encounter in Italy and Spain, in France and Germany. The nation is

made in the likeness of the country; it shows the same unity, we might say the same monotony, as the plains on which it dwells."

Influence of soils in low plains.

The more flat and featureless a lowland is, the more important become even the slightest surface irregularities which can draw faint dividing lines among the population. Here a gentle land-swell, river, lake, forest, or water-soaked moor serves as boundary. Especially apparent is the differentiating influence of difference of soils. Gravel and alluvium, sand and clay, chalk and more recent marine sediments, emphasize small geographical differences throughout the North German lowland and its extension through Belgium and Holland; here various soils differentiate the distribution of population. In the Netherlands we find the Frisian element of the Dutch people inhabiting chiefly the clay soils and low fens of the west and northwest, the Saxon in the diluvial tracts of the east, and the Frankish in the river clays and diluvium of the south. All the types have maintained their differences of dialect, styles of houses, racial character, dress and custom.[18] The only distinctive region in the great western lowland of France, which comprises over half of the country, is Brittany, individualized in its people and history by its peninsula form, its remote western location, and its infertile soil of primary rocks. Within the sedimentary trough of the Paris Basin, a slight Cretacean platform like the meadow land of Perche[19] (200 to 300 meters elevation) introduces an area of thin population devoted to horse and cattle raising in close proximity to the teeming urban life of Paris. The eastern lowland of England also can be differentiated economically and historically chiefly according to differences of underlying rocks, Carboniferous, Triassic, Jurassic, chalk, boulder clays, and alluvium, which also coincide often with slight variations of relief.[20] In Russia the contrast between the glaciated surface of the north and the Black Mould belt of the south makes the only natural divisions of that vast country, unless we distinguish also the arid southeastern steppes on the basis of a purely climatic difference. [See map page 484.]

The broad coastal plain of our South Atlantic States contains only low reliefs, but it is diversified by several soil

belts, which exert a definite control over the industries of the inhabitants, and thereby over the distribution of the negro population. In Georgia, for instance, the rich alluvial soil of the swampy coast is devoted to the culture of rice and sea-island cotton, and contains over 60 per cent. of negroes in its population. This belt, which is only 25 miles wide, is succeeded inland by a broader zone of sandy pine barrens, where the proportion of negroes drops to only 20 or 30 per cent. of the total. Yet further inland is another fertile belt, devoted chiefly to the cultivation of upland cotton and harboring from 35 to over 60 per cent. of negroes in its population.[21] Alabama shows a similar stratification of soils and population from north to south over its level surface. Along the northern border of the state the cereal belt coincides with the deep calcareous soil of the Tennessee River Valley, where negroes constitute from 35 to 60 per cent. of the inhabitants. Next comes the mineral belt, covering the low foot-hills of the Appalachian Mountains. It contains the densest population of the state, less than 17 per cent. of which is negro. South of this is the broad cotton belt of various rich soils, chiefly deep black loam of the river bottoms, which stretches east and west across the state and includes over 60 per cent. of negroes in its population. This is succeeded by the low, coastal timber belt, marked by a decline in the quality of the soil and the proportion of negro inhabitants.[22]

Value of slight elevations.

In the dead level of extensive plains even slight elevations are seized upon for special uses, or acquire peculiar significance. The Kurgans or burial mounds of the prehistoric inhabitants of Russia, often twenty to fifty feet high, serve to-day as watch-towers for herdsmen tending their flocks.[23] Similarly the Bou-bous, inhabiting the flat grasslands of the French Congo between the Shari and Ubangui Rivers, use the low knolls dotted over their country, probably old ant-hills, as lookout points against raiders.[24] The sand hills and ridges which border the southern edges of the North German lowland form districts sharply contrasted to the swampy, wooded depressions of the old deserted river valleys just to the north. Early occupied by a German stock, they furnished the first German colonists to displace the primitive Slav

population surviving in those unattractive, inaccessible regions, as seen in the Spreewald near Kottbus to-day.

Plains and political expansion.

The boundless horizon which is unfavorable to a nascent people endows them in their belated maturity with the power of mastering large areas. Political expansion is the dominant characteristic of the peoples of the plains. Haxthausen observed that handicapped and retarded Russia commands every geographic condition and national trait necessary for virile and expansive political power.[25] Muscovite expansion eastward across the lowlands of Europe and Asia is paralleled by the rapid spread of American settlement and dominion across the plains and prairies of the Mississippi Valley, and Hungarian domination of the wide Danubian levels from the foot-hills of the Austrian Alps to the far Carpathian watershed. It was the closely linked lowlands of the Seine and Loire which formed the core of political expansion and centralization in France. Nearly the whole northern lowland of Germany has been gradually absorbed by the kingdom of Prussia, which now comprises in its territory almost two-thirds of the total area of the Empire. Prussian statesmen formulated the policy of German unification and colonial expansion, and to Prussia fell the hereditary headship of the Empire.

Lowland states tend to stretch out and out to boundaries which depend more upon the reach of the central authority than upon physical features. We have seen American settlement and dominion overleap one natural boundary after another between the Mississippi River and the Pacific, from 1804 to 1848. Russia in an equally short period has pushed forward its Asiatic frontier at a dozen points, despite all barriers of desert and mountain. Argentina, blessed with extensive plains, fertile soil and temperate climate, which have served to augment its population both by natural increase and steady immigration (one-fourth of its population is foreign), has expanded across the Rio Negro over the grasslands of the Patagonian plain, and thereby enlarged its area by 259,620 square miles since 1881. The statesman of the plains is a nature-made imperialist; he nurses wide territorial policies and draws his frontiers for the future. To him a "far-flung battle line" is

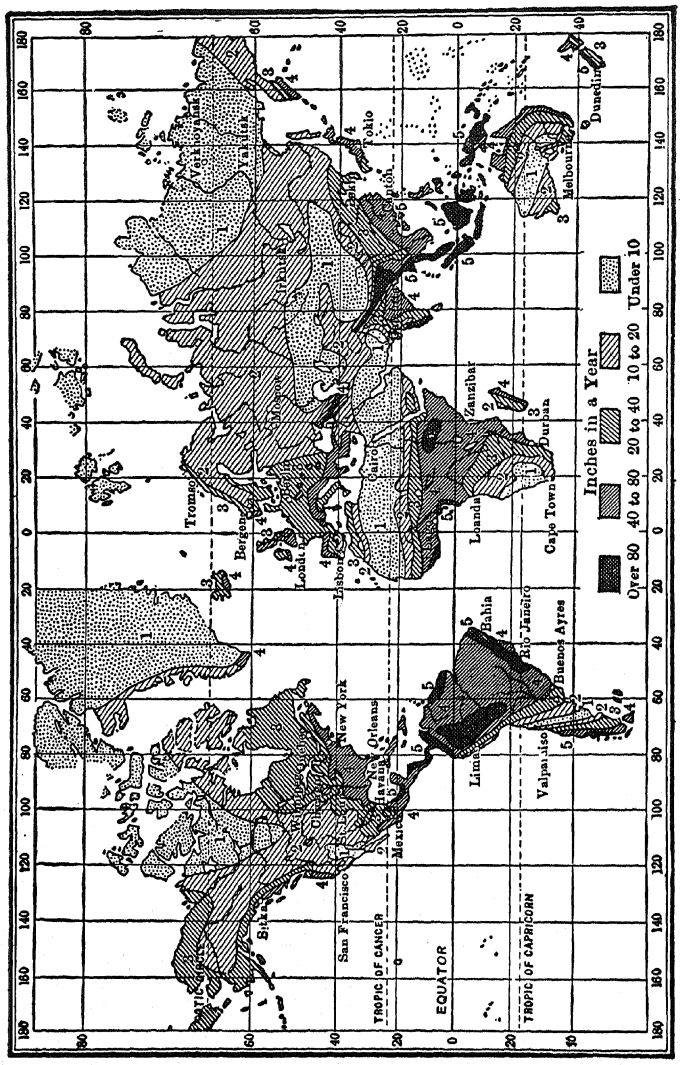
significant only as a means to secure a far-flung boundary line.

Arid plains.

From these low, accessible plains of adequate rainfall, which at first encourage primitive nomadism but finally make it yield to sedentary life and to dense populations spreading their farms and cities farther and farther over the unresisting surface of the land, we turn to those boundless arid steppes and deserts which Nature has made forever the homes of restless, rootless peoples. Here quiescence is impossible, the *Völkerwanderung* is habitual, migration is permanent. The only change is this eternal restlessness. While the people move, progress stands still. Everywhere the sun-scorched grasslands and waterless waste have drawn the dead-line to the advance of indigenous civilization. They permit no accumulation of productive wealth beyond increasing flocks and herds, and limit even their growth by the food supply of scanty, scattered pasturage. The meager rainfall eliminates forests and therewith a barrier to migrations; it also restricts vegetation to grasses, sedges and those forms which can survive a prolonged summer drought and require a short period of growth.

Distribution and extent of arid plains.

The union of arid plains and steppe vegetation is based upon climate, and is therefore a widely distributed phenomenon. These plains, whether high or low, are found in their greatest extent in the dry trade-wind belts, as in the deserts and steppes of Arabia, Persia, Sudan, the Sahara, South Africa and Central Australia; and in vast continental interiors, where the winds arrive robbed of their moisture in passing intervening highlands, as in the grasslands of our western plains, the llanos and pampas of South America, and the steppes of Central Asia. But wherever they occur, whether in Argentina or Russian Turkestan or the higher plains of Mongolia and Tibet, they present the same general characteristics of land surface, climate, flora and fauna, and the same nomadic populations of pastoral or hunting tribes. In them the movement of peoples reaches its culminating point, permanent settlement its nil point. Here the hunting savage makes the widest sweep in pursuit of buffalo or antelope, and pauses least to till a field; here the pastoral nomad follows his systematic wandering in search of pas-



ANNUAL RAINFALL OF THE WORLD.

turage and his hardly less systematic campaigns of conquest. It is the vast area and wide distribution of these arid plains, combined with the mobility which they impose on native human life, that has lent them historical importance, and reproduced in all sections of the world that significant homologous relation of arid and well-watered districts.

Pastoral life.

The grasslands of the old world developed historical importance only after the domestication of cattle, sheep, goats, asses, horses, camels and yaks. This step in progress resulted in the evolution of peoples who renounced the precarious subsistence of the chase and escaped the drudgery of agriculture, to devote themselves to pastoral life. It was possible only where domesticable animals were present, and where the intelligence of the native or the peculiar pressure exerted by environment suggested the change from a natural to an artificial basis of subsistence. Australia lacked the type of animal. Though North America had the reindeer and buffalo, and South America the guanaco, llama and alpaca, only the last two were domesticated in the Andean highlands; but as these were restricted to altitudes from 10,000 to 14,000 feet, where pasturage was limited, stock raising in primitive South America was merely an adjunct to the sedentary agriculture of the high intermontane valleys, and never became the basis for pastoral nomadism on the grassy plains. However, when the Spaniards introduced horses and cattle into South America, the Indians and half-breeds of the llanos and pampas became regular pastoral nomads, known as llaneros and gauchos. They are a race of horsemen, wielding javelin and lasso and bola, living on meat, often on horse-flesh like the ancient Huns, dwelling in leather tents made on a cane framework, like those of the modern Kirghis and medieval Tartars, dressed in cloaks of horsehide sewn together, and raiding the Argentinian frontier of white settlement for horses, sheep and cattle, with the true marauding instinct of all nomads.[26]

Pastoral nomads of Arctic plains.

Aridity is not the only climatic condition condemning a people to nomadic life. Excessive cold, producing the tundra wastes of the far north, has the same effect. Therefore, throughout Arctic Eurasia, from the Lapp district of Nor-

way to the inland Chukches of eastern Siberia, we have a succession of Hyperborean peoples pasturing their herds of reindeer over the moss and lichen tundra, and supplementing their food supply with hunting and fishing. The reindeer Chukches once confined themselves to their peninsula, so long as the grazing grounds were unexhausted; but they now range as far west as Yakutsk on the Lena River. The Orochones of the Kolima River district in eastern Siberia, who live chiefly by their reindeer, have small herds. A well-to-do person will have 40 to 100 animals, and the wealthiest only 700, while the Chukches with herds of 10,000 often seek the pasture of the Kolima tundra.[27] Farther west, the Samoyedes of northern Siberia and Russia and the Zirians of the Petchora River range with their large herds northward to the Yalmal Peninsula and Vaygats Isle in summer, and southward in winter. [See map pages 103, 225.] Here a herd of fifty head, which just suffices for the support of one family of four souls, requires 10 square versts, or 4.44 square miles of tundra pasturage.[28] Hence population must forever remain too sparse ever to attain historical significance. [See map page 8.] The Russian Lapps, too, lead a semi-nomadic life. Each group has a particular summer and winter settlement. The winter village is located usually inland in the Kola Peninsula, where the forests lend shelter to the herds, and the summer one near the tundra of the coast, where fishing is accessible. In winter, like the nomads of the deserts, they add to their slender income by the transport of goods by their reindeer and by service at the post stations.[29]

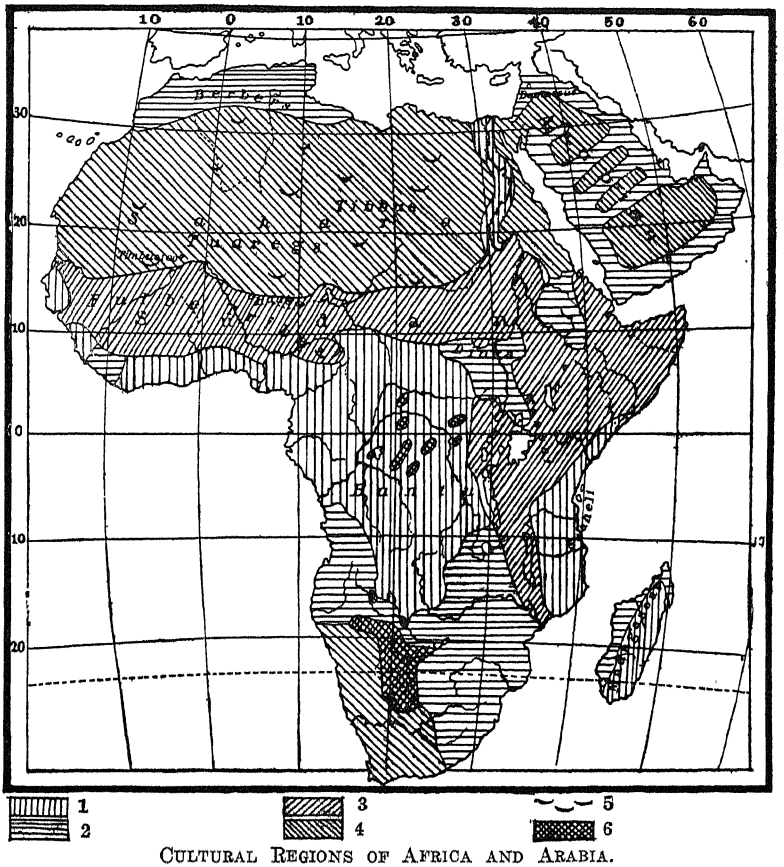
Historical importance of steppe nomads

These nomads of the frozen north, scattered sparsely over the remote periphery of the habitable world, have lacked the historical importance which in all times has attached to the steppe nomads, owing to their central location. The broad belt of deserts and grasslands which crosses the old world diagonally between 10° and 60° North Latitude from the Atlantic in Africa to the Pacific in Asia, either borders or encompasses the old domains of culture found in river oases, alluvial lowlands or coastal plains of the Torrid and Temperate Zones. The restless, mobile, unbound shepherds of the arid lands have never long been contained by the

country which bred them. They have constantly encroached upon the territory of their better placed neighbors, invading, conquering, appropriating their fields and cities, disturbing but at the same time acquiring their culture, lording it over the passive agriculturists, and at the same time putting iron into their weaker blood. It is the geographical contact between arid steppes and moist river valley, between land of poverty and land of plenty, that has made the history of the two inseparable.[30]

Mobility of pastoral nomads.

Every aspect of human life in the steppes bears the stamp



CULTURAL REGIONS OF AFRICA AND ARABIA.

1. Agricultural tribes. 2. Combined agricultural and grazing. 3. Agricultural tribes under dominion of pastoral nomads. 4. Deserts. 5. Oases, combining tillage and grazing. 6. Hunting tribes.

of mobility. The nomad tolerates no clog upon his movements. His dwelling is the tent of skin or felt as among Kalmucks and Kirghis, or the tent wagon of the modern Boer[31] and the ancient Scythian as described by Herodotus.[32] "This device has been contrived by them as the country is fit for it," he says,—level, grassy, treeless. The temporary settlement of shepherd tribes is the group of tents, or the ancient *carrago* camp of the nomadic Visigoths,[33] or the *laager* of the pastoral Boers, both a circular barricade or corral of wagons.

Tendency to trek.

Constant movement reduces the impedimenta to a minimum. The Orochones, a Tunguse nomadic tribe of eastern Siberia, have no furniture in their tents, and keep their meager supply of clothing and utensils neatly packed on sledges, as if to start at a moment's notice.[34] The only desirable form of capital is that which transports itself, namely, flocks and herds. Beyond that, wealth is limited to strictly portable forms, preferably silver, gold and jewels. It was in terms of these, besides their herds, that the riches of Abraham and Lot were rated in the Bible. That the Israelites when traveling through the wilderness should have had the gold to make the golden calf accords strictly with the verisimilitude of pastoral life.[35] Moreover, that these enslaved descendants of the Sheik Abraham, with their traditions of pastoral life, should have simply trekked—ruptured the frail ties of recently acquired habit which bound them to the Nile soil, is also in keeping with their inborn nomadic spirit. Similar instances occur among modern peoples. The Great Trek of the South African Boers in 1836, by which they renounced not only their unwelcome allegiance to England, but also their land,[36] was another exodus in accordance with the instinct of a pastoral people. They adopted no strange or difficult course, but traveled with their families as they were wont in their every day life of cattle-tenders, took all their chattels with them, and headed for the thin pastures of the far-reaching veldt. The Russian government has had to contend with a like fluidity in her Cossack tribes of the steppes, who have been up and off when imperial authority became oppressive. In the summer of 1878 West Siberia

lost about 9000 Kirghis, who left the province Semipalatinsk to seek Mongolia.

Seasonal migrations.

Environment determines the nomadic habits of the dweller of desert and steppe. The distribution of pasture and water fixes the scope and the rate of his wandering; these in turn depend upon geographic conditions and vary with the season. The Papago Indians of southern Arizona range with their cattle over a territory 100 by 150 miles in extent, and wander across the border into Mexico. When their main water supply, derived from wells or artificial reservoirs near their summer villages, is exhausted, they migrate to the water-holes, springs or streams in the cañons. There the cattle graze out on the plains and return to the cañons to drink.[37] Every Mongol tribe and clan has its seasonal migration. In winter the heavier precipitation and fuller streams enable them to collect in considerable groups in protected valleys; but the dry summer disperses them over the widest area possible, in order to utilize every water-hole and grass spot. The hotter regions of the plains are abandoned in summer for highlands, where the short period of warmth yields temporary pastures and where alone water can be found. The Kirghis of Russian Turkestan resort in summer to the slopes and high valleys of the Altai Mountains, where their auls or tent villages may be seen surrounded by big flocks of sheep, goats, camels, horses and cattle.[38] The Pamir in the warm months is the gathering place for the nomads of Central Asia. The naked desert of Arabia yields a rare herbage during the rainy season, when the Bedouin tribes resort to it for pasturage;[39] but during the succeeding drought they scatter to the hills of Yemen, Syria and Palestine,[40] or migrate to the valley of the Nile and Euphrates.[41] The Arabs of the northern Sahara, followed by small flocks of sheep and goats, vibrate between the summer pastures on the slopes of the Atlas Mountains and the scant, wiry grass tufts found in winter on the borders of the desert.[42] When the equatorial rains begin in June, the Arabs of the Atbara River follow them north-westward into the Nubian desert, and let their camel herds graze on the delicate grass which the moisture has conjured up from the sandy soil. The

country about Cassala, which is flooded during the monsoon rains by the rivers from the Abyssinian Mountains, is reserved for the dry season.[43] In the same way the Tartar tribes of the Dnieper, Don, Volga and Ural Rivers in the thirteenth century moved down these rivers in winter to the sea coast, and in summer up-stream to the hills and mountains.[44] So for the past hundred years the Boers of the South African grasslands have migrated in their tent wagons from the higher to the lower pastures, according to the season of the year, invading even the Karroo Desert after the short summer rains.[45]

Marauding expeditions.

This systematic movement of nomads within their accepted boundaries leads, on slight provocation, to excursions beyond their own frontiers into neighboring territories. The growing herd alone necessitates the absorption of more land, more water-holes, because the grazed pastures renew their grass slowly under the prevailing conditions of drought. An area sufficient for the support of the tribe is inadequate for the sustenance of the herd, whose increase is a perennial expansive force. Soon the pastures become filled with the feeding flocks, and then herdsmen and herds spill over into other fields. Often a season of unusual drought, reducing the existing herbage which is scarcely adequate at best, gives rise to those irregular, temporary expansions which enlarge the geographical horizon of the horde, and eventuate in widespread conquest. Such incursions, like the seasonal movements of nomads, result from the helpless dependence of shepherd tribes upon variations of rainfall.

The nomad's basis of life is at best precarious. He and want are familiar friends. A pest among his herds, diminished pasturage, failing wells, all bring him face to face with famine, and drive him to robbery and pillage.[46] Marauding tendencies are ingrained in all dwellers of the deserts and steppes.[47] Since the days of Job, the Bedouins of Arabia have been a race of marauders; they have reduced robbery to a system. Predatory excursions figure conspicuously in the history of all the tribes. Robber is a title of honor.[48] Pliny said that the Arabs were equally addicted to theft and trade. They pillaged caravans and held them for ransom,

or gave them safe conduct across the desert for a price. Formerly the Turkoman tribes of the Trans-Caspian steppes levied on the bordering districts, notably the northern part of Khorasan, which belonged more to the Turkomans, Yomut and Goklan tribes of the adjoining steppe than to the resident Persians. The border districts of Herat, Khiva, Merv and Bukhara used to suffer in the same way from the raids of the Tekkes, till the Russians checked the evil.[49] The Tekkes had depopulated whole districts, invaded Persian towns of considerable size, and carried off countless families into slavery. Both Turkomans and Kirghis tribes prior to 1873 raided caravans and carried off the travelers to the slave markets of Bukhara and Samarkand.[50] [See map page 103.]

Among these tribes no young man commanded respect in his community till he had participated in a *baranta* or cattle-raising.[51] For centuries the nomadic hordes of the Russian steppes systematically pillaged the peaceful agricultural Slavs, who were threatening to encroach upon their pasture lands. The sudden, swift descent and swift retreat of the mounted marauders with the booty into the pathless grass-lands, whither pursuit was dangerous, their tendency to rob and conquer but never to colonize, involved Russia in a long struggle, which ceased only with the extension of Muscovite dominion over the steppes.[52]

Depredation and conquests of African nomads.

All the Saharan tribes are marauders, whether Arabs, Berber Tuaregs, or Negroid Tibbus. The desert has made them so. The Tuaregs are chronic freebooters; they keep the Sahara and especially the caravan routes in constant insecurity. They stretch a cordon across these routes from Ghadames and Ghat in the east to the great oases of Insalah and Twat in the west; and from the oases and hills forming their headquarters they spread for pasturage and blackmail over the desert.[53] They exact toll over and over again from a caravan, provide it with a military escort of their own tribesmen, and then pillage it on the way.[54] This has been the experience of Barth[55] and other explorers. Caravans have not been their only prey. The agricultural peoples in the Niger flood-plain, the commerce on the river, and the markets of Timbuctoo long suffered from the raids of the

Tuaregs of the Sahara. They collected tribute in the form of grain, salt, garments, horses and gold, typical needs of a desert people, imposed tolls on caravans and on merchant fleets passing down the Niger to Timbuctoo. In 1770 they began to move from the desert and appropriate the fertile plains in the northern part of the Niger Valley, and in 1800 they conquered Timbuctoo; but soon they had to yield to another tribe of pastoral nomads, the Fulbes from the Senegal, who in 1813 established a short-lived but well organized empire on the ruins of the Tuareg dominion.[56] [See map page 105.] The other agricultural states of the Sudan have had the same experience. The Tibbus, predatory nomads of the French Sahara just north of Lake Chad and the River Yo, mounted on camels and ponies, cross the shrunken river in the dry season and raid Bornu for cattle, carry off women and children to sell as slaves, pillage the weekly markets on the Yo, and plunder caravans of pilgrims moving eastward to Mecca.[57] Nowhere can desert nomads and the civilized peoples of agricultural plains dwell side by side in peace. Raids, encroachments, reprisals, finally conquest from one side or the other is the formula for their history. [See map page 487.]

Forms of defense against nomad depredations.

The raided territory, if a modern civilized state, organizes its border communities into a native mounted police, as the English have done in Bornu, Sokoto and the Egyptian Sudan, and as the Russians did with their Cossack riders along the successive frontiers of Muscovite advance into the steppes; or it takes into its employ, as we have seen, the nearest nomad tribes to repress or punish every hostile movement beyond. Among the ancient states the method was generally different. Since the nomad invaders came with their flocks and herds, a barrier often sufficed to block their progress. For this purpose Sesostris built the long wall of 1500 stadia from Pelusium to Heliopolis as a barricade against the Arabians.[58] Ancient Carthage constructed a ditch to check the depredations of the nomads of Numidia.[59] The early kings of Assyria built a barrier across the plains of the Euphrates above Babylon to secure their dominion from the incursions of the desert Medes.[60] In the fifth century of our era, the "Red Wall" was constructed near the

northern frontier of Persia as a bulwark against the Huns. It stretched for a hundred and fifty miles from the Caspian Sea at the ancient port of Aboskun eastward to the mountains, and thus enclosed the populous valley of the Gurgen River.[61] In remote ages the neck of the Crimean Peninsula was fortified by a wall against the irruptions of the Tauro-Scythians.[62] The Russians early in their national history used the same means of defense against Tartar incursions. One wall was built from Pensa on the Sura River to Simbirsk on the Volga, just south of Kazan; another, further strengthened by a foss and palisades, extended from the fortress of Tsaritzin at the southern elbow of the Volga across the fifty-mile interval to the Don, and was still defended in 1794 by the Cossacks of the Don against the neighboring Kirghis hordes.[63] The classic example of such fortifications against pastoral nomads, however, is the Great Wall of China.

Pastoral life as a training for soldiers.

The nomad is economically a herdsman, politically a conqueror, and chronically a fighter. Strife over pasturage and wells meets us in the typical history of Abraham, Lot and Isaac;[64] it exists within and without the clan. The necessity of guarding the pastures, which are only intermittently occupied, involves a persistent military organization. The nation is a quiescent army, the army a mobilized nation.[65] It carries with it a self-transporting commissariat in its flocks and herds. Constant practice in riding, scouting and the use of arms, physical endurance tested by centuries of exertion and hardship, make every nomad a soldier. Cavalry and camel corps add to the swiftness and vigor of their onslaught, make their military strategy that of sudden attack and swifter retreat, to be met only by wariness and extreme mobility. The ancient Scythians of the lower Danubian steppes were all horse archers, like the Parthians. "If the Scythians were united, there is no nation which could compare with them or would be capable of resisting them; I do not say in Europe, but even in Asia," said Thucydides.[66] In this opinion Herodotus concurred.[67] The nomad's whole existence breeds courage. The independent, hazardous life of the desert makes the Arab the bravest of mankind, but

the settled, agricultural Arab of Egypt and Mohammedan Spain lost most of his fighting qualities.[68]

Military organization of nomads.

The daily life of a nomad horde is a training school for military organization. In the evening the flocks and herds are distributed with system around the camp to prevent confusion. The difficult art of a well ordered march, of making and breaking camp, and of foraging is practiced almost daily in their constant migrations.[69] The usual order of the Bedouin march could scarcely be surpassed by an army. In advance of the caravan moves a body of armed horsemen, five or seven kilometers ahead; then follows the main body of the tribesmen mounted on horses and camels, then the female camels, and after these the beasts of burden with the women and children. The encampment of tents with the places for men, arms and herds is also carefully regulated. More than this, the horde is organized into companies with their superior and subordinate leaders.[70] John de Carpini describes Genghis Khan's military organization of his vast Tartar horde by tens, hundreds and thousands, his absolute dominion over his conquered subjects, and prompt absorption of them into his fighting force, by the compulsory enlistment of soldiers out of every freshly subjugated nation.[71] In the same way the Hebrew tribes, when preparing for the conquest of Canaan, adopted from the desert Midianites the organization of the horde into tens, hundreds and thousands under judges, who were also military leaders in time of war.

Capacity for conquest and political consolidation.

Thus certain geographic conditions produce directly the habitual and systematic migration of the nomads, and through this indirectly that military and political organization which has given the shepherd races of the earth their great historical mission of political consolidation. Agriculture, though underlying all permanent advance in civilization, is handicapped by the lack of courage, mobility, enterprise and large political outlook characterizing early tillers of the soil. All these qualities the nomad possesses. Hence the union of these two elements, imperious pastor superimposed upon peaceful tiller, has made the only stable governments among savage and semi-civilized races.[72] The politically invertebrate peoples of dark Africa have secured the back-

bone to erect states only from nomad conquerors. The history of the Sudan cannot be understood apart from a knowledge of the Sahara and its peoples. All the Sudanese states were formed by invaders from the northern desert, Hamitic or Semitic. [See map page 487.] The Galla or Wahuma herdsmen of East Africa founded and maintained the relatively stable states of Uganda, Kittara, Karague, and Uzinza in the equatorial district; the conquerors remained herders while they lorded it over the agricultural aborigines.[73] In prehistoric times when the various peoples of the Aryan linguistic family were spreading over Europe and southern Asia, the superiority of the shepherd races must have been especially marked, because in that era only the unobstructed surface of the steppes permitted the concentration of men on a vast scale for migration and conquest. Everywhere else regions of broken relief and dense forests harbored small, isolated peoples, to whom both the idea and the technique of combined movement were foreign.

Scope of nomad conquests.

The rapidity and wide scope of such conquests is explained largely by the fact that nomads try to displace only the ruling classes in the subjugated territory, leaving the mass of the population practically undisturbed. Thus they spread themselves thin over a wide area. How lasting are the results of such conquests depends upon the degree of social evolution attained by the herdsmen. Genghis Khan and Tamerlane, after the manner of overlords, organized their conquered nations, but left them under the control of local princes,[74] while their tribute gatherers annually swept the country like typical nomad marauders. The Turks are still only encamped in Europe. They too make taxation despoliation. And though their dominion has produced no assimilation between victor and vanquished, it has given political consolidation to a large area occupied by varied peoples. The Hyksos conquest of Egypt found the Nile Valley divided into several petty principalities under a nominal king. The nomad conquerors possessed political capacity and gave to Egypt a strong, centralized government, which laid the basis for the power and glory of the Eighteenth Dynasty. The Tartars in 1279 A. D. and the Manchus in 1664 con-

quered China, extended its boundaries, governed the country as a ruling class, and left the established order of things undisturbed. The Saracen conquest of North Africa and Spain showed for a time organization and a permanence due to the advanced cultural status of the sedentary Arabs drawn into the movement by religious enthusiasm. The environment of Spain tended to conserve the knowledge of agriculture, industry, architecture, and science which they brought in and which might have cemented Spaniard and Moor, had it not been for the intense religious antagonism existing between the two races.

The history of nomad conquerors shows that they become weakened by the enervating climate and the effeminating luxury of the moist and fertile lowlands. They lose eventually their warlike spirit, like the Fellatah or Fulbe founders of the Sudanese states,[75] and are either displaced from their insecure thrones by other conquerors sprung from the same nomad-breeding steppe, as the Aryan princes of India by the Mongol Emperor, and the Saracen invaders of Mesopotamia by the victorious Turkomans; or they are expelled in time by their conquered subjects, as the Tartars were from Russia, the Moors from Spain, and the Turks from the Danube Valley.

Centralization versus decentralization in nomadism.

Nomad hordes unite for concerted action to resist encroachment upon their pastures, or for marauding expeditions, or for widespread conquest; but such unions are from their nature temporary, though a career of conquest may be sustained for decades. The geographically determined mobility which facilitates such concentration favors also dispersal, decentralization. This is the paradox in nomadism. Geographic conditions in arid lands necessitate sparse distribution of population and of herds. Pastoral life requires large spaces and small social groups. When Abraham and Lot went to Canaan from Egypt, "the land was not able to bear them that they might dwell together, for their substance was great." Strife for the pasturage ensued between their respective herdsmen, so the two sheiks separated, Lot taking the plains of Jordan and Abraham the hill pastures of Hebron. Jacob and Esau separated for the same reason. The

encampment of the Kirghis shepherds rarely averages over five or six tents, except on the best grazing grounds at the best season of the year. The flow of spring, well or stream also helps to regulate their size. The groups of Mongol yurts or felt tents along the piedmont margin of the Gobi vary from four tents to a large encampment, according to water and grass.[76] Prevalsky mentions a population of 70 families or 300 souls in the Lob Nor district distributed in 11 villages, or less than 28 in each group.[77] Barth noticed the smallness of all the oasis towns of the Sahara, even those occupying favorable locations for trade on the caravan routes.[78]

Spirit of independence among nomads.

The nature-made necessity of scattering in small groups to seek pasturage induces in the nomad a spirit of independence. The Bedouin is personally free. The power of the sheik is only nominal,[79] and depends much upon his personal qualities. The gift of eloquence among the ancient Arabs has been attributed to the necessity of persuading a people to whom restraint was irksome.[80] Political organization is conspicuously lacking among the Tibbus of the Sahara[81] and the Turkoman tribes of the Trans-Caspian steppes. "We are a people without a head," they say. The title of sheik is an empty one. Custom and usage are their rulers.[82] Though the temporary union of nomadic tribes forms an effective army, the union is short-lived. Groups form, dissolve and re-form, with little inner cohesion. The Boers in South African grasslands showed the same development. The government of the Dutch East India Company in Cape Colony found it difficult to control the wandering cattlemen of the interior plateau. They loved independence and isolation; their dissociative instincts, bred by the lonely life of the thin-pastured veldt, were overcome only by the necessity of defense against the Bushmen. Then they organized themselves into commandos and sallied out on punitive expeditions, like the Cossack tribes of the Don against marauding Tartars. Scattered over wide tracts of pasture land, they were exempt from the control of either Dutch or English authority; but when an energetic administration pursued them into their widespread ranches, they eluded

control by trekking.[83] Here was the independent spirit of the steppe, reinforced by the spirit of the frontier.

Resistance to conquest.

Though the desert and steppe have bred conquerors, they are the last parts of the earth's surface to yield to conquest from without. The untameable spirit of freedom in the shepherd tribes finds an ally against aggression in the trackless sands, meager water and food supply of their wilderness. Pursuit of the retreating tribesmen is dangerous and often futile. They need only to burn off the pasture and fill up or pollute the water-holes to cripple the transportation and commissariat of the invading army. This is the way the Damaras have fought the German subjugation of Southwest Africa.[84] Moreover, the paucity of economic and political possibilities in deserts and grasslands discourages conquest. Conquest pays only where it is a police measure to check depredations on the bordering agricultural lands, or where such barren areas are transit lands to a desirable territory beyond. It is chiefly the "Gates of Herat" and the lure of India which have drawn Russian dominion across the scorched plains of Turkestan. France has assumed the big task of controlling the Sahara to secure a safe passway between French Tunisia and the rich Niger basin of the French Sudan. The recent British-Egyptian expansion southward across the Nubian steppes had for its objective the better watered districts of the upper Nile above Khartum. This desert advance is essentially a latter day phenomenon, the outcome of modern territorial standards; it is attended or secured by the railroad. To this fact the projected Trans-Saharan line is the strongest witness.

Nature everywhere postpones, obstructs, jeopardizes the political conquest of arid lands. The unstable, fanatical tribesmen of the Egyptian Sudan, temporarily but effectively united under the Mahdi, made it necessary for Kitchener to do again in 1898 the work of subjugation which Gordon had done thirty years before. The body of the Arabian people is still free. The Turkish sovereignty over them to-day is nominal, rather an alliance with a people whom it is dangerous to provoke and difficult to attack. Only the coast provinces of Hejaz, Yemen and Hasa are subject to Turkey,

while the tribes of the interior and of the southeastern seaboard are wholly independent.[85] The Turkoman tribes of Trans-Caspia have been subordinated to Russia largely by a process of extermination.[86] China is satisfied with a nominal dominion over the roaming populations of Mongolia and Chinese Turkestan. The French pacification and control of Northwest Africa meets a peculiar problem, due to the extreme restlessness and restiveness of the dominant Arab race. The whole population is unstable as water; a disturbance or movement in one tribe is soon communicated to the whole mass.[87]

Curtailment of nomadism.

The steppe or desert policy for the curtailment of nomadism, and the reclamation of both land and people is to encourage or enforce sedentary life. The French, to settle the wandering tribes on the Atlas border of the Sahara, have opened a vast number of artesian wells through the agency of skillful engineers, and thus created oases in which the fecund sands support abundant date-palm groves.[88] The method pursued energetically by the Russians is to compress the tribes into ever narrowing limits of territory, taking away their area of plunder and then so restricting their pasture lands, that they are forced to the drudgery of irrigation and tillage. In this way the Yomuts and Goklans occupying the Caspian border of Trans-Caspia have been compelled to abandon their old marauding, nomadic life and become to some extent agriculturists.[89] The method of the Chinese is to push forward the frontier of agricultural settlement into the grasslands, dislodging the shepherd tribes into poorer pastures. They have thus reclaimed for grain and poppy fields considerable parts of the Ordos country in the great northern bend of the Hoangho, which used to be a nursery for nomadic invaders. A similar substitution of agriculture for pastoral nomadism of another type has in recent decades taken place in the semi-arid plains of the American West. Sheep-grazing on open range was with difficulty dislodged from the San Joaquin Valley of California by expanding farms in the sixties. More recently "dry farming" and scientific agriculture adapted to semi-arid conditions have "pushed the desert off the map" in Kansas, and advanced the frontier of tillage

across the previous domain of natural pastures to the western border of the state.

Pastoral nomadism has been gradually dislodged from Europe, except in the salt steppes of the Caspian depression, where a vast tract, 300,000 square miles in area and wholly unfit for agriculture, still harbors a sparse population of Asiatic Kalmuck and Kirghis hordes, leading the life of the Asiatic steppes.[90] In Asia, too, the regions of pastoral nomadism have been curtailed, but in Africa they still maintain for the most part the growing, expanding geographical forms which they once showed in Europe, when nomadism prevailed as far as the Alps and the Rhine. In Africa shepherd tribes cover not only the natural grasslands, but lap over into many districts destined by nature for agriculture. Hence it is safe to predict that a conspicuous part of the future economic and cultural history of the Dark Continent will consist in the release of agricultural regions from nomad occupancy and dominion.

Supplementary agriculture of pastoral nomads.

Though agriculture is regarded with contempt and aversion by pastoral nomads and is resorted to for a livelihood only when they lose their herds by a pest or robbery, or find their pasture lands seriously curtailed, nevertheless nomadism yields such a precarious and monotonous subsistence that it is not infrequently combined with a primitive, shifting tillage. The Kalmucks of the Russian steppes employ men to harvest hay for the winter feeding. The Nogai Tartars practice a little haphazard tillage on the alluvial hem of the steppe streams.[91] Certain Arab tribes living east of the Atbara and Gash Rivers resort with their herds during the dry season to the fruitful region of Cassala, which is inundated by the drainage streams from Abyssinia, and there they cultivate dourra and other grains.[92] The Bechuana tribes inhabiting the rich, streamless grassland of the so-called Kalahari Desert rear small herds of goats and cultivate melons and pumpkins; among the other Bechuana tribes on the eastern margin of the desert, the men hunt, herd the cattle and milk the cows, while the women raise dourra, maize, pumpkins, melons, cucumbers and beans.[93] [Compare maps pages 105, 487.]

Such supplementary agriculture usually shifts with the

nomad group. But where high mountains border rainless tracts, their piedmont districts regularly develop permanent cultivation. Here periodic rains or melting snows on the ranges fill the drainage streams, whose inundation often converts their alluvial banks into ready-made fields. The reliability of the water supply anchors here the winter villages of the nomads, which become centers of a limited agriculture, while the pasture lands beyond the irrigated strips support his flocks and herds. Where the piedmont of the Kuen Lun Mountains draws a zone of vegetation around the southern rim of the Takla Makan Desert, Mongol shepherds raise some wheat, maize and melons as an adjunct to their cattle and sheep; but their tillage is often rendered intermittent by the salinity of the irrigating streams.[94] Along the base of the Tian Shan Mountains, the felt yurt of the Gobi nomad gives place to Turki houses with wheat and rice fields, and orchards of various fruits; so that the whole piedmont highway from Hami to Yarkand presents an alternation of desert and oasis settlement.[95] Even the heart of arid Arabia shows fertile oases under cultivation where the lofty Nejd Plateau, with its rain-gathering peaks over five thousand feet high, varies its wide pastures with well tilled valleys abounding in grain fields and date-palm groves.[96] Along the whole Saharan slope of the Atlas piedmont a series of parallel wadis and, farther out in the desert, a zone of artesian wells, sunk to the underground bed of hidden drainage streams from the same range, form oases which are the seat of permanent agriculture and more or less settled populations. The Saharan highlands of Tibesti, whose mountains rise to 8,300 feet, condense a little rain and permit the Tibbus to raise some grain and dates in the narrow valleys.[97]

Irrigation and horticulture.

The few and limited spots where the desert or steppe affords water for cultivation require artificial irrigation, the importation of plants, and careful tillage, to make the limited area support even a small social group. Hence they could have been utilized by man only after he had made considerable progress in civilization.[98] Oasis agriculture is predominantly intensive. Gardens and orchards tend to prevail over field tillage. The restricted soil and water must be forced to yield

their utmost. While on the rainy or northern slope of the Atlas in Algiers and Tunis farms abound, on the Saharan piedmont are chiefly plantations of vegetables, orchards and palm groves.[99] In Fezzan at the oasis of Ghat, Barth found kitchen gardens of considerable extent, large palm groves, but limited fields of grain, all raised by irrigation; and in the flat hollow basin forming the oasis of Murzuk, he found also fig and peach trees, vegetables, besides fields of wheat and barley cultivated with much labor.[100] In northern Fezzan, where the mountains back of Tripoli provide a supply of water, saffron and olive trees are the staple articles of tillage. The slopes are terraced and irrigated, laid out in orchards of figs, pomegranates, almonds and grapes, while fields of wheat and barley border the lower courses of the wadis.[101] In the "cup oases" or depressions of the Sahara, the village is always built on the slope, because the alluvial soil in the basin is too precious to be used for house sites.[102]

Effect of diminishing water supply.

The water supply in deserts and steppes, on which permanent agriculture depends, is so scant that even a slight diminution causes the area of tillage to shrink. Here a fluctuation of snowfall or rainfall that in a moist region would be negligible, has conspicuous or even tragic results. English engineers who examined the utilization of the Afghan streams for irrigation reported that the natives had exploited their water supply to the last drop; that irrigation converted the Kabul River and the Heri-rud at certain seasons of the year into dry channels.[103] In the Turkoman steppes it has been observed that expanding tillage, by the multiplication of irrigation canals, increased the loss of water by evaporation, and hence diminished the supply. Facts like these reveal the narrow margin between food and famine, which makes the uncertain basis of life for the steppe agriculturist. Even slight desiccation contracts the volume and shortens the course of interior drainage streams; therefore it narrows the piedmont zone of vegetation and the hem of tillage along the river banks. The previous frontier of field and garden is marked by abandoned hamlets and sand-buried cities, like those which border the dry beds of the shrunken Khotan rivers of the Tarim basin.[104] The steppe regions in the New World

as well as the Old show great numbers of these ruins. Barth found them in the northern Sahara, dating from Roman days.[105] They occur in such numbers in the Syrian Desert, in the Sistan of Persia, in Baluchistan, the Gobi, Takla Makan Desert, Turfan and the Lop Nor basin, that they indicate a marked but irregular desiccation of central and western Asia during the historical period.[106]

Scant diet of nomads.

If a scant water supply places sedentary agriculture in arid lands upon an insecure basis, it makes the nomad's sources of subsistence even more precarious. It keeps him persistently on low rations, while the drought that burns his pastures and dries up well and wadi brings him face to face with famine. The daily food of the Bedouin is meal cooked in sour camel's milk, to which bread and meat are added only when guests arrive. His moderation in eating is so great that one meal of a European would suffice for six Arabs.[107] The daily food of the shepherd agriculturists on the Kuen Lun margin of the Takla Makan Desert is bread and milk; meat is indulged in only three or four times a month.[108] The Tartars, even in their days of widest conquest, showed the same habitual frugality. "Their victuals are all things that may be eaten, for we saw some of them eat lice." The flesh of all animals dying a natural death is used as food; in summer it is sun-dried for winter use, because at that time the Tartars live exclusively on mare's milk which is then abundant. A cup or two of milk in the morning suffices till evening, when each man has a little meat. One ram serves as a meal for fifty or a hundred men. Bones are gnawed till they are burnished, "so that no whit of their food may come to naught." Genghis Khan enacted that neither blood nor entrails nor any other part of a beast which might be eaten should be thrown away.[109] Scarcity of food among the Tibetan and Mongolian nomads is reflected in their habit of removing every particle of meat from the bone when eating.[110] A thin decoction of hot tea, butter and flour is their staple food. Many Turkoman nomads, despite outward appearance of wealth, eat only dried fish, and get bread only once a month, while for the poor wheat is prohibited on account of its cost.[111] The Saharan Tibbus, usually on a

starvation diet, eat the skin and powdered bones of their dead animals.[112]

The privations and hardships of life in the deserts and steppes discourage obesity. The Koko-Nor Mongols of the high Tibetan plateau are of slight build, never fat.[113] The Bedouin's physical ideal of a man is spare, sinewy, energetic and vigorous, "lean-sided and thin," as the Arab poet expresses it.[114] The nomadic tribesmen throughout the Sahara, whether of Hamitic, Semitic or Negro race, show this type, and retain it even after several generations of settlement in the river valleys of the Sudan. The Bushmen, who inhabit the Kalahari Desert, have thin wiry forms and are capable of great exertion and privations.[115]

Checks to population.

Though the conquering propensities of nomadic tribes make large families desirable, in order to increase the military strength of the horde, and though shepherd folk acquiring new and rich pastures develop patriarchal families, as did the Jews after the conquest of Canaan, nevertheless the limited water and food supply of desert and grassland, as well as the relatively low-grade economy of pastoral life, impose an iron-bound restriction upon population, so that as a matter of fact patriarchal families are rare. When natural increase finds no vent in emigration and dispersal, marriage among nomads becomes less fruitful.[116] Artificial limitation of population occurs frequently among desert-dwellers. In the Libyan oasis of Farafeah, the inhabitants never exceed eighty males, a limit fixed by a certain Sheik Murzuk.[117] Poverty of food supply explains the small number of children in the typical Turkoman family. Among the Koko-Nor Tibetans, monogamy is the rule, polygamy the exception and confined to the few rich, while families never include more than two or three children.[118] According to Burckhardt, three children constitute a large family among the Bedouins, much to the regret of the Bedouins themselves. Mohammedans though they are, few practice polygamy, while polyandry and female infanticide existed in heathen times.[119] Desert peoples seem to be naturally monogamous.[120]

Trade of nomads.

The prevailing poverty, monotony and unreliability of subsistence in desert and steppe, as well as the low industrial

status, necessitate trade with bordering agricultural lands. The Bedouins of Arabia buy flour, barley for horse feed, coffee and clothing, paying for them largely with butter and male colts. The northern tribes resort every year to the confines of Syria, when they are visited by pedlers from Damascus and Aleppo.[121] The tribes from Hasa and the Nejd pasture land bring horses, cattle and sheep to the city of Koweit at the head of the Persian Gulf to barter for dates, clothing and firearms; and large encampments of them are always to be seen near this town.[122] Arabia and the Desert of Kedar sold lambs, rams and goats to the markets of ancient Tyre.[123] The pastoral tribes of ancient Judea in times of scarcity went to Egypt for grain, which they purchased either with money or cattle. The picture of Jacob's sons returning from Egypt to Canaan with their long lines of asses laden with sacks of corn is typical for pastoral nomads; so is their ultimate settlement, owing to protracted famine, in the delta land of Goshen. The Kirghis of the Russian and Asiatic steppes barter horses and sheep for cereals, fine articles of clothing, and coarse wooden utensils in the cities of Bukhara and the border districts of Russia. Occasionally the land of the nomad yields other products than those of the flocks and herds, which enter therefore into their trade. Such is the salt of the Sahara, secured at Taudeni and Bilma, the gums of the Indus desert, and balm of Gilead from the dry plateau east of Jordan.

Pastoral nomads as middlemen.

The systematic migrations of nomads, their numerous beasts of burden, and the paucity of desert and steppe products determine pastoral tribes for the office of middlemen;[124] and as such they appear in all parts of the world. The contrast of products in arid regions and in the bordering agricultural land, as also in the districts on opposite sides of these vast barriers, stimulates exchanges. This contrast may rest on a difference of geographic conditions, or of economic development, or both. The reindeer Chukches of Arctic Siberia take Russian manufactured wares from the fur stations on the Lena River to trade at the coast markets on Bering Sea for Alaskan pelts. The sons of Jacob, pasturing their flocks on the Judean plateau, saw "a company of

Ishmaelites come from Gilead with their camels bearing spicery and balm and myrrh, going to carry it down to Egypt."[125] This caravan of Arabian merchants purchased Joseph as a slave, a characteristic commodity in desert commerce from ancient times to the present. The predatory expeditions of nomads provide them with abundant captives, only few of which can be utilized as slaves in their pastoral economy. In the same way the Kirghis manage the caravan trade between Russia and Bukhara, sometimes adding captured travelers to their other wares. In ancient times Nubian shepherd folk acted as migrant middlemen between Egypt and Meroe near the junction of the Atbara River and the Nile, as did also the desert tribe of the Nasamones between Carthage and interior Africa.[126] From remote ages an active caravan trade was carried on between the productive districts of Arabia Felix and the cities of Mesopotamia, Syria and Egypt. Mohammed himself was a caravan leader; in the faith which he established religious pilgrimages and commercial ventures were inextricably united, while to the mercantile spirit it gave a fresh and vigorous impetus.[127] The caravan trade of the Sahara was first organized by Moorish and Arab tribes who dwelt on the northern margin of the desert, rearing herds of camels. These they hired to merchants for the journey between Morocco and Timbuctoo, in return for cereals and clothing. Hence Morocco has been the chief customer of the great desert town near the Niger, and sends thither numerous caravans from Tendouf (Taredant) Morocco, Fez and Tafilet. Algiers dominates the less important route via the oasis of Twat, and Tripolis that through Ghadames to the busy towns in the Lake Chad basin.[128]

Desert markets.

If the camel is "the ship of the desert," the market towns on the margin of the sandy wastes are the ports of the desert. Their bazaars hold everything that the nomad needs. Their suburbs are a shifting series of shepherd encampments or extensive caravanseries for merchant and pack animal, like the *abaradion* of Timbuctoo, which receives annually from fifty to sixty thousand camels.[129] Their industries develop partly in response to the demand of the desert or trans-

desert population. The fine blades of Damascus reflected the Bedouin's need of the best weapon. Each city has its sphere of desert influence. The province of Nejd in Central Arabia is commercially subservient to Bagdad, Busrah, Koweit and Bahrein.[130] The bazaars of Samarkand and Tashkent exist largely for the scattered nomads of Turkestan. Ancient Gaza[131] and Askelon fattened on the Egyptian trade across the Desert of Shur, as Petra, Bostra and Damascus on the thin but steady streams of nomad products flowing in from the Syrian Desert.

Nomad industries.

The abundant leisure of nomadic life encourages the beginning of industry, but rarely advances it beyond the household stage, owing to the thin, family-wise dispersion of population which precludes division of labor. Such industry as exists consists chiefly in working up the raw materials yielded by the herds. Among the Bedouins, blacksmiths and saddlers are the only professional artisans; these are regarded with contempt and are never of Bedouin stock.[132] In the ancient world, industry reached its zero point in Arabia, and in modern times shows meager development there. On the other hand the Saharan Arabs developed an hereditary guild of expert well-makers, which seems to date back to remote times, and is held in universal honor.[133]

Oriental rugs.

It is to the tent-dwellers of the world, however, that we apparently owe the oriental rug. This triumph of the weaver's art seems to have originated among pastoral nomads, who developed it in working up the wool and hair of their sheep, goats and camels; but it early became localized as a specialized industry in the towns and villages of irrigated districts on the borders of the grazing lands, where the nomads had advanced to sedentary life. Therefore in the period of the Caliphate, from 632 to 1258, we find these brilliant flowers of the loom, blooming like the Persian gardens, in Persian Farsistan, Khusistan, Kirman and Khorasan. We find them spreading the mediaeval fame of Shiraz, Tun, Meshed, Amul, Bukhara and Merv. The secret of this preeminence lay partly in the weaver's inherited aptitude and artistic sense for this textile work, derived from countless generations of shepherd ancestors; partly in their proximity to the finest raw materials,

whose quality was equalled nowhere else, because it depended upon the character of the pasturage, probably also upon the climatic conditions affecting directly the flocks and herds.[134]

A map showing the geographical distribution of Eastern rug-making reveals the relation of the industry to semi-arid or saline pastures, and makes the mind revert at once to the blankets of artistic design and color, woven by the Navajo Indians of our own rainless Southwest. Rug weaving in the Old World reached its finest development in countries like Persia, Turkestan, western Afghanistan, Baluchistan, western India and the plateau portions of Asia Minor, countries where the rainfall varies from 10 to 20 inches or even less, [See map page 484.] where nomadism claims a considerable part of the population, and where the ancestry of all traces back to some of the great shepherd races, like Turkomans and Tartars. These peoples are hereditary specialists in the care, classification, and preparation of wools.[135] Weavers of rugs form an industrial class in the cities of Persia and Asia Minor, where they obey largely the taste of the outside world in regard to design and color;[136] whereas the nomads, weaving for their own use, adhere strictly to native colors and designs. Their patterns are tribal property, each differing from that of the other; and though less artistic than those of the urban workers, are nevertheless interesting and consistent, while the nomad's intuitive sense of color is fine.[137]

Architecture of nomad conquerors.

The principles of design and color which these tent-dwellers had developed in their weaving, they applied, after their conquest of agricultural lands, to stone and produced the mosaic, to architecture and produced the Alhambra and the Taj Mahal.[138] Whether Saracens of Spain or Turkoman conquerors of India, they were ornamentists whose contribution to architecture was decoration. Working in marble, stone, metals or wood, they wrought always in the spirit of color and textile design, rather than in the spirit of form. The walls of their mosques, palaces and tombs reproduce the beauty of the rugs once screening the doors of their felt tents. The gift of color they passed on to the West, first through the Moors of Sicily and Spain, later through Venetian commerce. Their influence can be seen in the exquisite mosaic decoration

in the cloister of Mont Reale of once Saracenic Palermo, and in the Ducal Palace and St. Mark's Cathedral of beauty-loving Venice.[139] This has been almost their sole contribution to the art of the world.

Pastoral nomads can give political union to civilized peoples; they can assimilate and spread ready-made elements of civilization, but to originate or develop them they are powerless. Between the art, philosophy and literature of China on the one side, and of the settled districts of Persia on the other, lies the cultural sterility of the Central Asia plateau. Its outpouring hordes have only in part acquired the civilization of the superior agricultural peoples whom they have conquered; from Kazan and Constantinople to Delhi, from Delhi to Peking they have added almost nothing to the local culture.

Arid lands as areas of arrested development.

Deserts and steppes lay an arresting hand on progress. Their tribes do not develop; neither do they grow old. They are the eternal children of the world. Genuine nomadic peoples show no alteration in their manners, customs or mode of life from millennium to millennium. The interior of the Arabian desert reveals the same social and economic status,[140] whether we take the descriptions of Moses or Mohammed or Burckhardt or more recent travelers. The Bedouins of the Nubian steppes adhere strictly to all their ancient customs, and reproduce to-day the pastoral nomadism of Abraham and Jacob.[141] Genealogies were not more important to the biblical house of David and stem of Jesse than they are for the modern Kirghis tribesman, who as a little child learns to recite the list of his ancestors back to the seventh generation. The account which Herodotus gives of the nomads of the Russian steppes agrees in minute details with that of Strabo written five centuries later,[142] with that of William de Rubruquis in 1253, and with modern descriptions of Kalmuck and Kirghis life. The Gauchos or Indian pastoral halfbreeds of the Argentine plains were found by Wappäus in 1870 to accord accurately with Avara's description of them at the end of the eighteenth century.[143] The restless tenants of the grasslands come and go, but their type never materially changes. Their culture is stationary amid persistent movement. Only when here or there in some small and favored spot they are forced to make

the transition to agriculture, or when they learn by long and close association with sedentary nations the lesson of drudgery and progress, do the laws of social and economic development begin to operate in them. As a rule, they must first escape partly or wholly the environment of their pasture lands, either by emigration or by the intrusion into their midst of alien tillers of the soil.

But while the migrant shepherd originates nothing, he plays an historical rôle as a transmitter of civilization. Asiatic nomads have sparsely disseminated the culture of China, Persia, Egypt and Yemen over large areas of the world. The Semite shepherds of the Red Sea deserts, through their merchants and conquerors, long gave to the dark Sudan the only light of civilization which it received. Mohammed, a Bedouin of the Ishmaelite tribe, caravan leader on the desert highways between Mecca and Syria, borrowed from Jerusalem the simple tenets of a monotheistic religion, and spread them through his militant followers over a large part of Africa and Asia.

Mental and moral qualities of nomads.

The deserts and grasslands breed in their sons certain qualities and characteristics—courage, hardihood, the stiff-necked pride of the freeman, vigilance, wariness, sense of locality,[144] keen powers of observation stimulated by the monotonous, featureless environment, and the consequent capacity to grasp every detail.[145] Though robbery abroad is honorable and marauder a term with which to crown a hero, theft at home is summarily dealt with among most nomads. The property of the unlocked tent and the far-ranging herd must be safeguarded.[146] The Tartars maintained a high standard of honesty among themselves and punished theft with death.[147] Wide dispersal in small groups is reflected in the diversity of dialects among desert peoples;[148] in the practice of hospitality, whether among Bedouins of the Nejd, Kirghis of the Central Asia plateau,[149] or semi-nomadic Boers of South Africa;[150] in the persistence of feuds and of the duty of blood revenge, which is sanctioned by the Koran.

Isolation tends to breed among nomads pride of race and a repugnance to intermixture. The ideal of the pastoral

Israelites was a pure ethnic stock, protected by stern inhibition of intermarriage with other tribes. Therefore, Moses enjoined upon them the duty of exterminating the peoples of Canaan whom they dispossessed.[151] While the urban Arabs show a medley of breeds, dashed with a strain of negro blood, among the nomad Bedouins, mixture is exceptional and is regarded as a disgrace.[152] The same thing is true among the nomad Arabs of Algeria, and there it has placed a stumbling block in the way of the French colonial administration, by preventing the appearance of half-breeds who might bridge the gap between the colonials and natives. Where pastoral Semites have settled in agricultural lands, inermixture on a wide scale has followed, as in the Sudan from Niger to Nile; but even here, when a tribe or clan has retained a strictly pastoral life in the grassland, and has held itself aloof from the agricultural districts of the Negro villages, relatively pure survivals are to be found, as among the Cow or Bush Fulani of Bornu.[153] On the other hand, the Hausa, a migrant trading folk of mingled Arab and Negro blood, spread northward along the trans-Saharan caravan route to the oasis of Air before the fourteenth century, and there have infused into the local Berber stock a strong Negro strain.[154] Among the nomads of Central Asia, one wave of race movement has so often followed and overtaken another, that it has produced a confused blending of breeds. The mixtures are so numerous that pure types are exceptional,[155] and the exclusiveness of the desert Semites disappears.

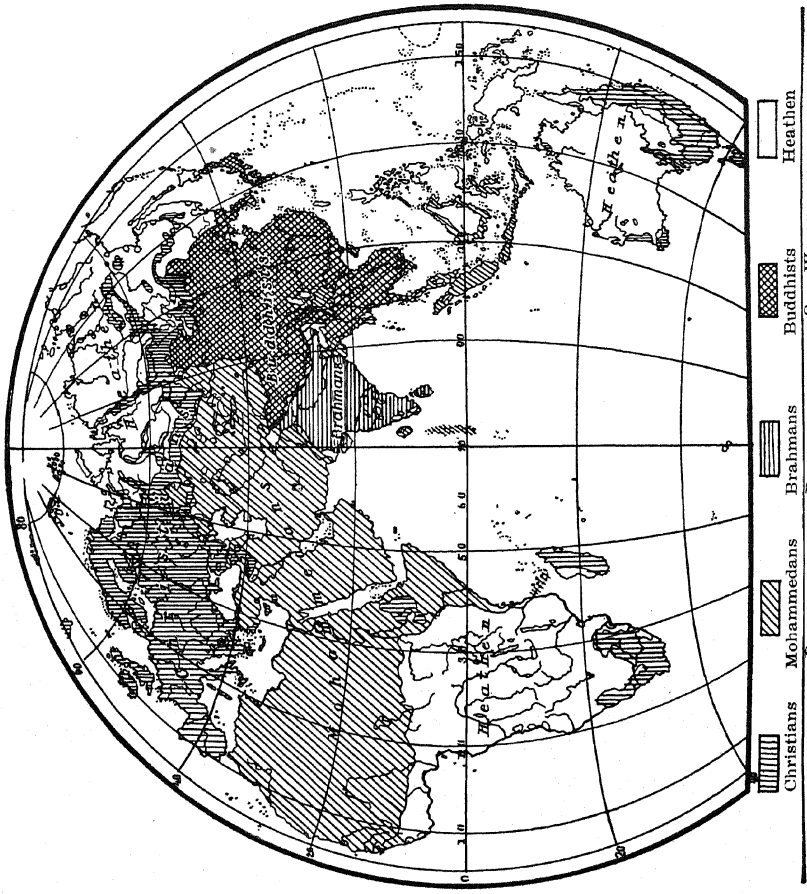
Religion of pastoral nomads.

Though all these desert-born characteristics and customs have a certain interest for the sociologist, they possess only minor importance in comparison with the religious spirit of pastoral nomads, which is always fraught with far-reaching historical results. The evidence of history shows us that there is such a thing as a desert-born genius for religion. Huc and Gabin testify to the deeper religious feeling of the Buddhist nomads of the Central Asia plateaus, as compared with the lowland Chinese. The three great monotheistic religions of the world are closely connected in their origin and development with the deserts of Syria and Arabia. The area of Mohammedism embraces the steppe zone of the Old World[156]

from Senegambia and Zanzibar in Africa to the Indus, Tarim and the upper Obi, together with some well watered lands on its margins. It comprises in this territory a variety of races —Negroes, Hamites, Semites, Iranians, Indo-Aryans, and a long list of Mongoloid tribes. Here is a psychological effect of environment. The dry, pure air stimulates the faculties of the desert-dweller, but the featureless, monotonous surroundings furnish them with little to work upon. The mind, finding scant material for sustained logical deduction, falls back upon contemplation. Intellectual activity is therefore restricted, narrow, unproductive; while the imagination is unfettered but also unfed. First and last, these shepherd folk receive from the immense monotony of their environment the impression of unity.[157] Therefore all of them, upon outgrowing their primitive fetish and nature worship, gravitate inevitably into monotheism. Their religion is in accord with their whole mental make-up; it is a growth, a natural efflorescence. Therefore it is strong. Its tenets form the warp of all their intellectual fabrics, permeate their meager science and philosophy, animate their more glorious poetry. It has moreover the fanaticism and intolerance characterizing men of few ideas and restricted outlook upon life. Therewith is bound up a spirit of propaganda. The victories of the Jews in Palestine, Syria and Philistia were the victories of Jehovah; the conquests of Saladin were the conquests of Allah; and the domain of the Caliphate was the dominion of Islam.

Fanaticism as a force in nomad expansion.

The desert everywhere, sooner or later, drives out its brood, ejects its people and their ideas, like those exploding seed-pods which at a touch cast their seed abroad. The religious fanaticism of the shepherd tribes gives that touch; herein lies its historical importance. Mohammedism, fierce and militant, conduced to those upheavals of migration and conquest which since the seventh century have so often transformed the political geography of the Old World. The vast empire of the Caliphate, from its starting point in Arabia, spread in eighty years from the Oxus River to the Atlantic Ocean.[158] The rapid rise and spread between 1745 and 1803 of the Wahaby clan and sect, the Puritans of Islam, which resulted for a time in their political and religious domination



DISTRIBUTION OF RELIGIONS IN THE OLD WORLD

of much of Arabia from their home in the Nejd, recalls the stormy conquests of Mohammed's followers. Islam is to-day a persistent source of ferment in Algeria, the Sahara, and the Sudan. On the other hand, Buddhism serves to cement together the diverse nomadic tribes of the Central Asia plateaus, and keep them in spiritual subjection to the Grand Lama of Lhassa. The Chinese government makes political use of this fact by dominating the Lama and employing him as a tool to secure quiet on its long frontier of contact with its restless Mongol neighbors. Moreover the religion of Buddha has restrained the warlike spirit of the nomads, and by its institution of celibacy has helped keep down population below the boiling-point. [Compare maps pages 484 and 513.]

The faith of the desert.

The faith of the desert tends to be stern, simple and austere. The indulgence which Mohammed promised his followers in Paradise was only a reflex of the deprivation under which they habitually suffered in the scant pastures of Arabia. The lavish beauty of the Heavenly City epitomized the ideals and dreams of the desert-stamped Jew. The active, simple, uncramped life of the grasslands seems essential to the preservation of the best virtues of the desert-bred. These disappear largely in sedentary life. The Bedouin rots when he takes root. City life contaminates, degrades him. His virile qualities and his religion both lose their best when he leaves the desert. Contact with the cities of Philistia and the fertile plains of the Canaanites, with their sensual agricultural gods, demoralized the Israelites.[159] The prophets were always calling them back to the sterner code of morals and the purer faith of their days of wandering. Jeremiah in despair holds up to them as a standard of life the national injunction of the pastoral Rechabites, "Neither shall ye build house nor sow corn nor plant vineyard, but all your days ye shall dwell in tents."[160] The ascent in civilization made havoc with Hebrew morals and religion, because ethics and religion are the finest and latest flower of each cultural stage. Transition shows the breaking down of one code before the establishment of another.

Judaism has always suffered from its narrow local base. Even when transplanted to various parts of the earth, it has

remained a distinctly tribal religion. Intense conservatism in doctrine and ceremonial it still bears as the heritage of its desert birth. Islam too shows the limitations of its original environment. It embodies a powerful appeal to the peoples of arid lands, and among these it has spread and survives as an active principle. But it belongs to an arrested economic and social development, lacks the germs of moral evolution which Christianity, born in the old stronghold of Hebraic monotheism, but impregnated by all the cosmopolitan influences of the Mediterranean basin and the *Imperium Romanum*, amply possesses.

NOTES TO CHAPTER XIV

1. Figures taken from Albrecht Penck, *Morphologie der Erdoberfläche*, Vol. I, p. 151. Stuttgart, 1894.
2. A. P. Brigham, Geographic Influences in American History, Chap. IV. Boston, 1903.
3. E. C. Semple, American History and Its Geographic Conditions, pp. 65-69, 230, 288, 385. Boston, 1903.
4. *Ibid.*, pp. 218, 221, 393.
5. H. R. Mill, International Geography, p. 127. New York, 1902.
6. Henry Buckle, History of Civilization in England, Vol. II, pp. 126-136. New York, 1871.
7. Carl Ritter, Comparative Geography, pp. 191-192, 201. Philadelphia, 1865.
8. J. H. Breasted, History of Egypt, pp. 142, 144, 261-265, 293-302, 513-517. New York, 1905.
9. *Ibid.*, 6, 48, 93, 114, 119, 127, 134, 136, 163, 164, 182, 190, 191, 507.
10. W. Z. Ripley, Races of Europe, pp. 340-343, map. New York, 1899.
11. Anatole Leroy-Beaulieu, The Empire of the Tsars, Vol. I, pp. 57-60. New York, 1893.
12. W. Z. Ripley, Races of Europe, Maps, pp. 53 and 66. New York, 1899.
13. Hans Helmolt, History of the World, Vol. VI, p. 130, map of ancient distribution of Germans and Celts. New York, 1907.
14. W. Z. Ripley, Races of Europe, pp. 216-218. New York, 1899.
15. *Ibid.*, 344-347, 356, 365.
16. Elisée Reclus, Europe, Vol. IV, pp. 309-310. New York, 1882.
17. Anatole Leroy-Beaulieu, Empire of the Tsars, Vol. I, p. 107. New York, 1893.
18. H. R. Mill, International Geography, pp. 220-222. New York, 1902.
19. Vidal-Lablache, *Atlas Général*, Maps pp. 63, 64, 93. Paris, 1909.
20. H. R. Mill, International Geography, 174, 177-182. New York, 1902.
21. Twelfth Census, Bulletin of Agriculture No. 181, p. 2, compared with Eleventh Census, Statistics of Population, map of negro distribution, p. XCVII. Washington, 1895.

22. Twelfth Census, Bulletin of Agriculture, No. 155, p. 2. Washington, 1902.
23. W. Z. Ripley, Races of Europe, p. 353. New York, 1899.
24. Boyd Alexander, From the Niger to the Nile, Vol. II, p. 238. London, 1907.
25. Haxthausen, *Studien*, Vol. I, p. 309. *Die landliche Verfassung Russlands*, pp. 3, 7. Leipzig, 1866.
26. Ratzel, History of Mankind, Vol. II, pp. 79-83. London, 1896-1898. J. Wappäus, *Handbuch der Geographie und Statistik des ehemaligen spanischen Mittel- und Sud-Amerika*, pp. 978-980, 1019. Leipzig, 1863-1870.
27. Ratzel, History of Mankind, Vol. II, pp. 206-208. London, 1896-1898.
28. Nordenskiold, Voyage of the Vega, pp. 60, 156, 452. New York, 1882. Alexander P. Engelhardt, A Russian Province of the North, pp. 291-295. London, 1899.
29. *Ibid.*, pp. 83, 88-91.
30. Ratzel, History of Mankind, Vol. III, pp. 166-167. London, 1896-1898.
31. James Bryce, Impressions of South Africa, p. 107. New York, 1897.
32. Herodotus, Melpomene, 19, 46.
33. Thomas Hodgkin, Italy and Her Invaders, Vol. I, p. 262. Oxford, 1892.
34 Ratzel, History of Mankind, Vol. II, p. 220. London, 1896-1898.
35. Genesis, XIII, 2, 5.
36. James Bryce, Impressions of South Africa, p. 474. New York, 1897.
37. Eleventh Census, Indian Report, pp. 143-144. Washington, 1894.
38. Sven Hedin, Central Asia and Tibet, Vol. I, pp. 18-20. London and New York, 1903.
39. J. L. Burckhardt, Notes on the Bedouins and Wahabys, Vol. I, pp. 32-33. London, 1831.
40. George Adam Smith, Historical Geography of the Holy Land, pp. 8-10. New York, 1897.
41. Gibbon, Decline and Fall of the Roman Empire, Vol. V, pp. 78-79. New York, 1858.
42. L. March Phillipps, In the Desert, p. 95. London, 1905.
43. Sir Samuel W. Baker, The Nile Tributaries of Abyssinia, pp. 88, 128, 129, 135. Hartford, 1868.
44. Journey of John de Carpini and William de Rubruquis in 1253, pp. 8, 217. Hakluyt Society, London, 1903.
45. James Bryce, Impressions of South Africa, pp. 107, 421. New York, 1897.
46. Wilhelm Roscher, *National-Oekonomik des Ackerbaues*, p. 44. Stuttgart, 1888.
47. A full discussion in Malthus, Principles of Population, Book I, chap. 7.
48. J. L. Burckhardt, Notes on the Bedouins and Wahabys, Vol. I, pp. 133-144, 157-160. London, 1831. S. M. Zwemer, Arabia, The Cradle of Islam, 155-157. New York, 1900.
49. Vambery, *Reise in Mittelasien*, pp. 285, 289-297. Leipzig, 1873.
50. Alexis Krausse, Russia in Asia, pp. 127-129. New York, 1899.

51. Ratzel, History of Mankind, Vol. III, pp. 174-175. London, 1896-1898.

52. Wallace, Russia, pp. 340-342. New York, 1904.

53. L. March Phillipps, In the Desert, pp. 17, 63-66. London, 1905.

54. Felix Dubois, Timbuctoo, pp. 256, 324-325. Translated from the French, New York, 1896.

55. Heinrich Barth, Travels in North and Central Africa, Vol. I, pp. 287-288, 293, 305. New York, 1857.

56. Felix Dubois, Timbuctoo, pp. 133-134, 203, 206-207, 229, 232, 239-245. New York, 1896.

57. Boyd Alexander, From the Niger to the Nile, Vol. II, pp. 1-2, 6, 16-18, 80. London, 1907.

58. Gibbon, Decline and Fall of the Roman Empire, Vol. V, p. 87. New York, 1858.

59. Pliny, *Historia Naturalis*, V, 3.

60. Gibbon, Decline and Fall of the Roman Empire, Vol. II, p. 495. New York, 1858.

61. Ellsworth Huntington, The Pulse of Asia, p. 340. Boston, 1907.

62. Pallas, Travels in the Southern Provinces of Russia in 1793-1794, Vol. II, p. 4. London, 1812.

63. *Ibid.*, Vol. I, pp. 94, 256.

64. Genesis, XIII, 7-8; XXI, 25-30; XXVI, 15-22.

65. Herbert Spencer, Principles of Sociology, Vol. I, p. 545. New York, 1887.

66. Thucydides, Book II, 96.

67. Herodotus, IV, 46.

68. Meredith Townsend, Asia and Europe, Chapter on Arab Courage. New York, 1904.

69. Wilhelm Roscher, *National-Oekonomik des Ackerbaues*, p. 44. Stuttgart, 1888.

70. J. L. Burckhardt, Notes on the Bedouins and Wahabys, Vol. I, pp. 35-36. London, 1831.

71. John de Plano Carpini, Journey to the Northeast, pp. 114-117, 120-125. Hakluyt Society, London, 1904.

72. Ratzel, History of Mankind, Vol. I, p. 28. London, 1896-1898.

73. J. H. Speke, Discovery of the Source of the Nile, pp. 241-244. New York, 1868.

74. Journey of William de Rubruquis, pp. 18-27. Hakluyt Society, London, 1900.

75. Jerome Dowd, The Negro Races, Vol. I, pp. 225-232. New York, 1907.

76. Sir Francis Younghusband, The Heart of a Continent, pp. 85-98. London, 1904.

77. Ratzel, History of Mankind, Vol. I, p. 170. London, 1896-1898.

78. Heinrich Barth, Travels in North and Central Africa, Vol. I, pp. 148, 152, 204, 210, 303. New York, 1857.

79. J. L. Burckhardt, Notes on the Bedouins and Wahabys, Vol. I, pp. 115-119, 284-286, 296-300. London, 1831.

80. Gibbon, Decline and Fall of the Roman Empire, Vol. V, pp. 85-87. New York, 1857.

81. Jerome Dowd, The Negro Races, Vol. I, pp. 234-235. New York, 1907.

82. Vambery, *Reise in Mittel Asien*, pp. 288-290. Leipzig, 1873.

83. James Bryce, Impressions of South Africa, pp. 108, 128, 129, 155, 199, 452-453. New York, 1897.

84. For vivid description of desert defensive warfare, see Gustav Frensen, Peter Moore's Journey to Southwest Africa. Translated from the German, 1908. Based upon interviews with hundreds of returning German soldiers from the Damara campaign.

85. H. R. Mill, International Geography, p. 454. New York, 1902.

86. Henry Norman, All the Russias, p. 273. New York, 1902.

87. L. March Phillipps, In the Desert, pp. 54-56. London, 1905.

88. *Ibid.*, pp. 161-164.

89. Ratzel, History of Mankind, Vol. III, p. 177. London, 1896-1898.

90. Anatole Leroy-Beaulieu, The Empire of the Tsars, Vol. I, pp. 29-30. New York, 1893.

91. Pallas, Travels through the Southern Provinces of Russia, Vol. I, pp. 532-533. London, 1812.

92. Sir S. W. Baker, Nile Tributaries of Abyssinia, p. 88. Hartford, 1868.

93. David Livingstone, Mssionary Travels, pp. 53-56, 169. New York, 1858.

94. Sven Hedin, Central Asia and Tibet, Vol. I, pp. 96, 136, 359. New York and London, 1903. Ellsworth Huntington, The Pulse of Asia, pp. 193, 202, 212, 213. Boston, 1907.

95. Sir Francis Younghusband, The Heart of a Continent, pp. 103, 104, 107, 112-116, 120, 125-128, 137, 138, 143. London, 1904.

96. S. W. Zwemer, Arabia the Cradle of Islam, pp. 147, 151. New York, 1900. D. G. Hogarth, The Nearer East, pp. 185, 195, 265. London, 1902.

97. Nachtigal, *Sahara und Sudan*, Vol. I, pp. 214-218, 267-269. Berlin, 1879.

98. Ratzel, History of Mankind, Vol. III, p. 168. London, 1896-1898.

99. H. R. Mill, International Geography, pp. 906, 914. New York, 1902.

100. H. Barth, Travels in North and Central Africa, Vol. I, pp. 152, 207, 210, 211. New York, 1857.

101. *Ibid.*, 41-44, 52, 61-64, 67, 76, 93, 95, 99, 103, 105.

102. L. March Phillipps, In the Desert, p. 174. London, 1905.

103. Sir Thomas Holdich, India, pp. 91-93. London, 1905.

104. M. A. Stein, The Sand-Buried Ruins of Khotan, pp. 275-324, 354-408. London, 1903.

105. H. Barth, Travels in North and Central Africa, Vol. I, chap. III. New York, 1857.

106. Ellsworth Huntington, The Pulse of Asia, pp. 160-190, 209, 304, 309-310, 315, 367. Boston, 1907.

107. J. L. Burckhardt, Notes on the Bedouins and Wahabys, Vol. I, pp. 57-64, 238-242. London, 1831.

108. E. Huntington, The Pulse of Asia, pp. 137-138. Boston, 1907.

109. John de Plano Carpini, Journey to the Northeast, pp. 109-111, 120. Hakluyt Society, London, 1904. Journey of William de Rubruquis, pp. 191-193, 203, 224. Hakluyt Society, London, 1903.

110. W. W. Rockhill, The Land of the Lamas, p. 80. New York, 1891.

111. Vambery, *Reise in Mittel Asien*, p. 295. Leipzig, 1873.

112. Nachtigal, *Sahara und Sudan*, Vol. I, pp. 257, 268. Berlin, 1879.

113. E. Huntington, The Pulse of Asia, p. 74. Boston, 1907.

114. L. March Phillipps, In the Desert, pp. 198-201. London, 1905.

115. D. Livingstone, Travels and Researches in South Africa, p. 55. New York, 1859.

116. W. Roscher, *Grundlagen der Nationalökonomik*, Book VI, chap. II, p. 244. Stuttgart, 1886.

117. Ratzel, History of Mankind, Vol. III, p. 170. London, 1896-98.

118. W. W. Rockhill, Land of the Lamas, p. 80. New York, 1891.

119. J. L. Burckhardt, Notes on the Bedouins and Wahabys, Vol. I, pp. 106, 187. London, 1831. S. M. Zwemer, Arabia the Cradle of Islam, pp. 162, 268. New York, 1900.

120. Westermarck, History of Human Marriage, p. 429, notes 2 and 5, p. 440, note 2, p. 507. London, 1891.

121. J. L. Burckhardt, Notes on the Bedouins and Wahabys, Vol. I, pp. 47, 48, 70, 71, 191-192, 239. London, 1831.

122. S. M. Zwemer, Arabia the Cradle of Islam, p. 128. New York, 1900.

123. Ezekiel, Chap. XXVII, 21.

124. For economic principle, see W. Roscher, *Handel und Gewerbefleiss*, pp. 141-147. Stuttgart, 1899.

125. Genesis, Chap. XXXVII, 25-28, 36.

126. W. Roscher, *National-Ockonomik des Ackerbaues*, p. 39, Note 11. Stuttgart, 1888.

127. S. P. Scott, History of the Moorish Empire in Europe, Vol. III, p. 616. Philadelphia, 1904.

128. Felix Dubois, Timbuctoo, pp. 251-252. New York, 1896.

129. *Ibid.*, pp. 257-264.

130. S. M. Zwemer, Arabia the Cradle of Islam, p. 151. New York, 1900.

131. George Adam Smith, Historical Geography of the Holy Land, pp. 182-184. New York, 1897.

132. J. L. Burckhardt, Notes on the Bedouins and Wahabys, Vol. I, p. 65. London, 1831.

133. L. March Phillipps, In the Desert, pp. 130-134. London, 1903.

134. F. R. Martin, A History of Oriental Carpets before 1800, pp. 9, 29, 69 et seq., 101, 121. Vienna, 1908. G. LeStrange, Land of the Eastern Caliphates, pp. 37, 293-294, 353, 363, 471. Cambridge, 1905.

135. J. K. Mumford, Oriental Rugs, pp. 23-40, 100-111. New York, 1895.

136. D. G. Hogarth, The Nearer East, pp. 197-198. London, 1902.

137. J. K. Mumford, Oriental Rugs, p. 61. New York, 1895.

138. J. Ferguson, History of Architecture, Vol. II, pp. 277-278, 499, 500. New York. J. Ferguson, History of Indian and Eastern Architecture, Vol. II, pp. 210-214. New York, 1891.

139. Wilhelm Bode, *Vorderasiatische Knüpfteppiche*, pp. 3-4. Leipzig.

140. Gibbon, Decline and Fall of the Roman Empire, Vol. V, p. 78. New York, 1858.

141. Sir S. W. Baker, Exploration of the Nile Tributaries of Abyssinia, pp. 148-152. Hartford, 1868.

142. Strabo, Book VII, chap. III, 7, 17; chap. IV, 6. Book XI, chap. II, 1, 2, 3.

143. J. Wappäus, *Handbuch der Geographie und Statistik des ehemaligen spanischen Mittel- und Sud-Amerika*, p. 1019. Leipzig, 1863-1870.

144. Sir F. Younghusband, The Heart of a Continent, pp. 72, 74. London, 1904. Alfred Kirchoff, Man and Earth, pp. 58-71. London.

145. J. L. Burckhardt, Notes on the Bedouins and Wahabys, Vol. I, pp. 374-377. London, 1831. L. March Phillipps, In the Desert, pp. 98-100. London, 1905.

146. Exodus, Chap. XXII, 1-4, 23.

147. John de Plano Carpini, Journey to the Northeast in 1246, pp. 110, 111, 113. Hakluyt Society, London, 1904.

148. Gibbon, Decline and Fall of the Roman Empire, Vol. V, p. 89. New York, 1858. H. Barth, Travels in North and Central Africa, Vol. I, p. 144. New York, 1857.

149. E. Huntington, The Pulse of Asia, pp. 121-123. Boston, 1907.

150. James Bryce, Impressions of South Africa, p. 422. New York, 1897.

151. Deuteronomy, VII, 1-3.

152. Ratzel, History of Mankind, Vol. III, p. 184. London, 1896-1898.

153. Boyd Alexander, From the Niger to the Nile, Vol. I, pp. 190-197. London, 1907.

154. H. Barth, Travels in North and Central Africa, Vol. I, pp. 202, 277-281. New York, 1857.

155. Ratzel, History of Mankind, Vol. III, p. 173. London, 1896-1898.

156. *Ibid.*, Vol. III, Chapter on Islam, pp. 195-204.

157. George Adam Smith, Historical Geography of the Holy Land, pp. 28-30. New York, 1897. L. March Phillipps, In the Desert, pp. 101-105. London, 1905.

158. E. A. Freeman, Historical Geography of Europe, pp. 114-116. London, 1882.

159. George Adam Smith, Historical Geography of the Holy Land, pp. 88-90. New York, 1897.

160. Jeremiah, Chap. XXXV, 6-14.

CHAPTER XV

MOUNTAIN BARRIERS AND THEIR PASSES

Man as part of the mobile envelope of the earth.

THE important characteristic of plains is their power to facilitate every phase of historical movement; that of mountains is their power to retard, arrest, or deflect it. Man, as part of the mobile envelope of the earth, like air and water feels always the pull of gravity. From this he can never fully emancipate himself. By an output of energy he may climb the steepest slope, but with every upward step the ascent becomes more difficult, owing to the diminution of warmth and air and the increasing tax upon the heart.[1] Maintenance of life in high altitudes is always a struggle. The decrease of food resources from lower to higher levels makes the passage of a mountain system an ordeal for every migrating people or marching army that has to live off the country which it traverses. Mountains therefore repel population by their inaccessibility and also by their harsh conditions of life, while the lowlands attract it, both in migration and settlement. Historical movement, when forced into the upheaved areas of the earth, avoids the ridges and peaks, seeks the valleys and passes, where communication with the lowlands is easiest.

Inaccessibility of mountains.

High massive mountain systems present the most effective barriers which man meets on the land surface of the earth. To the spread of population they offer a resistance which long serves to exclude settlers. The difficulty of making roads up steep, rocky slopes and through the forests usually covering their rain-drenched sides, is deterrent enough; but in addition to this, general infertility, paucity of arable land, harsh climatic conditions, and the practical lack of communication with the outside world offer scant basis for subsistence. Hence, as a rule, only when pressure of population in the lowlands becomes too great under prevailing economic methods, do clearings and cabins begin to creep up the slopes. Moun-

tains are always regions of late occupation. Even in the Stone Age, we find the long-headed race of Mediterranean stock, who originally populated Europe, distributed over the continent close up to the foot of the high Alps, but not in the mountains themselves, and only scantily represented in the Auvergne Plateau of France. The inhospitable highlands of Switzerland, the German Alps, and the Auvergne received their first population later when the Alpine race began to occupy western Europe.[2] The *Mittelgebirge* of Germany were not settled till the Middle Ages. In the United States, the flood of population had spread westward by 1840 to the ninety-fifth meridian and the north-south course of the Missouri River; but out of this sea of settlement the Adirondack Mountains, a few scattered spots in the Appalachians, and the Ozark Highlands rose as so many islands of uninhabited wilderness, and they remain to-day areas of sparser population. In 1800, the "bare spots" in the eastern mountains were more pronounced. [See map page 156.] Great stretches of the Rocky Mountains, of the Laurentian Highlands of Canada, like smaller patches in the Scandinavian and Swiss Alps, are practically uninhabited.

Mountains as transit regions.

Mountain regions, like deserts and seas, become mere transit districts, which man traverses as quickly as possible. Hence they often lie as great inert areas in the midst of active historical lands, and first appear upon the historical stage in minor rôles, when they are wanted by the plains people as a passway to desirable regions beyond. Then, as a rule, only their transit routes are secured, while the less accessible regions are ignored. Cæsar makes no mention of the Alps, except to state that he has crossed them, until some of the mountain tribes try to block the passage of Roman merchants or armies; then they become important enough to be conquered. It was not till after the Cimbri in 102 B. C. invaded Italy by the Brenner route, that the Romans realized the value of Rhætia (Tyrol) as a thoroughfare from Italy to Germany, and began its conquest in 36 B. C. This was the same value which the Tyrol so long had for the old German Empire and later for Austria,—merely to secure connection with the Po Valley. The need of land communication with the

Rhone Valley led the Romans to attack the Salyes, who inhabited the Maritime Alps, and after eighty years of war to force from them the concession of a narrow transit strip, twelve stadia or one and a half miles wide, for the purpose of making a road to Massilia.[3] The necessity of controlling such transit lands has drawn British India into the occupation of mountain Baluchistan, Kashmir and Sikkim, just as it has caused the highlands of Afghanistan to figure actively in the expansion policy of both India and Russia. The conquest of such transit lands has always been attended by road building, from the construction of the Roman highway through the Brenner Pass to the modern Russian military road through the Pass of Dariel across the Caucasus, and the yet more recent Indian railroad to Darjeeling, with the highway extension beyond to the Tibetan frontier through Himalayan Sikkim.

Such mountain regions attain independent historical importance when their population increases enough to form the nucleus of a state, and to acquire additional territory about the highland base either by conquest or voluntary union, while they utilize their naturally protected location and their power to grant safe transit to their allies, as means to secure their political autonomy. Therefore to mountain regions so often falls the rôle of buffer states. Such were medieval Burgundy and modern Savoy, which occupied part of the same territory, Navarre which in the late Middle Ages controlled the important passway around the western end of the Pyrenees, and Switzerland which commands the passes of the central Alps. The position of such mountain states is, however, always fraught with danger, owing to the weakness inherent in their small area and yet smaller allowance of productive soil, to their diverse ethnic elements, and the forces working against political consolidation in their deeply dissected surface. Political solidarity has a hard, slow birth in the mountains.

Transition forms of relief between highlands and lowlands.

In view of the barrier character of mountains, a fact of immense importance to the distribution of man and his activities is the rarity of abrupt, ungraded forms of relief on the earth's surface. The physiographic cause lies in the

elasticity of the earth's crust and the leveling effect of weathering and denudation. Everywhere mountains are worn down and rounded off, while valleys broaden and fill up to shallow trough outlines. Transition forms of relief abound. Human intercourse meets therefore few absolute barriers on the land; but these few reveal the obstacles to historical movement in perpendicular reliefs. The mile-high walls of the Grand Cañon of the Colorado are an insuperable obstacle to intercourse for a stretch of three hundred miles. The glacier-crowned ridge of the Bernese Alps is crossed by no wagon road between the Grimsel Pass and the upper Rhone highway around their western end, a distance of 100 kilometers (62 miles). The Pennine Alps have no pass between the Great St. Bernard and the Simplon, a distance of 90 kilometers (54 miles).

Importance of transition slopes.

Gentle transition slopes or terrace lands facilitate almost everywhere access to the lowest, most habitable and therefore, from the human standpoint, most important section of mountains. They combine the ease of intercourse characteristic of plains with many advantages of the mountains, and especially in warm climates they unite in a narrow zone both tropical and temperate vegetation. The human value of these transition slopes holds equally of single hills, massive mountain systems, and continental reliefs. The earth as a whole owes much of its habitability to these gently graded slopes. Continents and countries in which they are meagerly developed suffer from difficulty of intercourse, retarded development and poverty of the choicest habitable areas. This is one disadvantage of South Africa, emphasized farther by a poor coastline. The Pacific face of Australia would gain vastly in historical importance, if the drop from the highlands to the ocean were stretched out into a broad slope, like that which links our Atlantic coastal plain with the Appalachian highlands. There each river valley shows three characteristic anthropo-geographical sub-divisions—the active seaports and tide-water tillage of its lower course, the contrasted agriculture of its hilly course, the upland farms, waterpower industries and mines of its headstream valleys, each landscape giving its population distinctive characteristics.

The same natural features, with the same effect upon human activities and population, appear in the long seaward slopes of France, Germany and northern Italy.

Piedmont belts as boundary zones.

At the base of the mountains themselves, where the bold relief begins, is always a piedmont zone of hilly surface but gentler grade, at whose inner or upland edge every phase of the historical movement receives a marked check. Here is a typical geographical boundary, physical and human. It shifts slightly in different periods, according to the growing density of population in the plains below and improved technique in industry and road-making. It is often both an ethnic and cultural boundary, because at the rim of the mountains the geologic and economic character of the country changes.[4] The expanding peoples of the plains spread over the piedmont so far as it offers familiar and comparatively favorable geographic conditions, scatter their settlements along the base of the mountains, and here fix their political frontier for a time, though later they may advance it to the crest of the ridge, in order to secure a more scientific boundary. The civilized population of the broad Indus Valley spread westward up the western highlands, only so far as the shelving slopes of the clay and conglomerate foothills, which constitute the piedmont of the Sulciman and Kirthar Mountains, afforded conditions for their crops. Thus from the Arabian Sea for 600 miles north to the Gomal River, the political frontier of India was defined by the line of relief dividing the limestone mountains from the alluvial plain, the marauding Baluch and Afghan hill tribes from the patient farmers of the Sind.[5] This line remained the border of India from pre-British days till the recent annexation of Baluchistan.

These piedmont boundaries are most clearly defined in point of race and civilization, where superior peoples from the lowlands are found expanding at the cost of retarded mountain folk. Romans and Rhaetians once met along a line skirting the foot of the eastern Alps, as Russians to-day along the base of the Caucasus adjoin the territories of the heterogeneous tribes occupying that mountain area.[6] [See map page 225.] The plains-loving Magyars of Hungary have

pushed up to the rim of mountainous Siebenburgen or Transylvania from Arad on the Maros River to Sziget on the upper Theiss, while the highland region has a predominant Roumanian population. A clearly defined linguistic and cultural boundary of Indo-Aryan speech and religion, both Hindu and Mohammedan, follows the piedmont edges of the Brahmaputra Valley, and separates the lowland inhabitants from the pagans of Tibeto-Burman speech occupying the Himalayan slope to the north and the Khasia Mountains to the south. The highland race is Mongoloid, while the Bengali of an Aryan, Dravidian and Mongoloid blend fill the river plain.[7] Such piedmont boundary lines tend to blur into bands or zones of ethnic intermixture and cultural assimilation. The western Himalayan foothills show the blend of Mongoloid and Aryan stocks, where the vigorous Rajputs of the plains have encroached upon the mountaineer's land.[8] Of almost every mountain folk it can be assumed that they once occupied their highlands to the outermost rim of the piedmont, and retired to the inner rim of this intermediary slope only under compulsion from without.

Density of population in piedmont belts.

The piedmont boundary also divides two areas of contrasted density of population. Mountain regions are, as a rule, more sparsely settled than plains. The piedmont is normally a transition region in this respect; but where high mountains rise as climatic islands of adequate water supply out of desert and steppes, they concentrate on their lower slopes all the sedentary population, making their piedmonts zones of greatest density. Low mountains in arid regions become centers of population; here their barrier nature vanishes. In the Sudanese state of Darfur, the Marra Mountains are the district best watered and most thickly populated. Nowhere higher than 6000 feet (1850 meters), they afford running water at 4000 feet elevation and water pools in the sandy beds of their wadis at 3200 feet. Below this, water disappears from the surface, and can be found only in wells whose depth and scarcity increase with distance from the central mountains.[9] The neighboring kingdom of Wadai shows similar conditions and effects.[10] In the heart of Australia, where utter desert reigns, the Macdonnell Ranges

form the nucleus of the northern area occupied by the Arunta tribe of natives; farther north the Murchison Range, usually abounding in water-holes, is the center and stronghold of the Warramunga tribe.[11]

Mineral wealth or waterpower in the mountains serves to collect an urban and industrial population along their rim, as we see it about the base of the Erz Mountains in Saxony, the Riesen range in Silesia, the coal-bearing Pennine Mountains of northwestern England, and the highlands of southern Wales, all which piedmont zones show a density of over 150 to the square kilometer (385 to the square mile). Hence the original Swiss Confederation, which included only the mountain cantons of Schwyz, Uri and Unterwalden, was greatly strengthened by the accession of the piedmont cantons of Lucerne, Zurich, Zug and Bern in the early fourteenth century, as later by St. Gall, Aargau and Geneva. These marginal cantons to-day show a density of population exceeding 385 to the square mile, and rising to 1356 in the canton of Geneva.

Piedmont towns and roads.

Piedmont belts tend strongly towards urban development, even where rural settlement is sparse. Sparsity of population and paucity of towns within the mountains cause main lines of traffic to keep outside the highlands, but close enough to their base to tap their trade at every valley outlet. On the alluvial fans or plains of these valley outlets, where mountain and piedmont road intersect, towns grow up. Some of them develop into cities, when they command transverse routes of communication quite across the highlands. The ancient *Via Aemilia* traced the northern base of the Apennines from Ariminum on the Adriatic to Dertona at the foot of the Ligurian range back of Genoa, and connected a long line of Roman colonies. The modern railroad follows almost exactly the course of the old Roman road,[12] while a transverse line southward across the Apennines, following an ancient highway over the Poretta Pass to the Arno Valley, has maintained the old preëminence of Bologna. A line of towns, connected by highways or railroads, according to the economic development of the section, defines the bases of the Pyrenees, Alps, Jura, Apennines, Harz, Vosges, Elburz and

numerous other ranges. Along the Elburz piedmont runs the imperial road of Persia from Tabriz through Teheran to Meshed. In arid regions these piedmont roads are an unfailing feature, but their towns shrink to rural settlements, except at the junction of transmontane routes.

Piedmont termini of transmontane routes.

Piedmont cities draw their support from plain, mountain and transmontane region, relying chiefly on the fertile soil of the level country to feed their large populations. Sometimes they hug the foot of the mountains, as Bologna, Verona, Bergamo, Zurich, Denver and Pittsburg do; sometimes, like Milan, Turin, and Munich, they drop down into the plain, but keep the mountains in sight. They flourish in proportion to their local resources, in which mineral wealth is particularly important, and to the number and practicability of their transmontane connections. Hence they often receive their stamp from the mountains behind them as well as from the bordering plain. The St. Gotthard route is flanked by Lucerne on the north and Milan on the south. The Brenner has its urban outlets at Munich and Verona. Narbonne and Barcelona form the termini of the route over the eastern Pyrenees; Toulouse commands the less used central passes, and Bayonne the western. Tiflis is situated in the great mountain trough connecting the Black Sea and the Caspian; but over the Caucasus by the Pass of Dariel come the influences which make it a Russian town. Peshawar, situated in the mountain angle of the Punjab, depends more upon the Khaibar Pass and its connections thereby with Central Asia than upon the plains of the Indus; its population, in appearance and composition nearly as much Central Asiatic as Indian, is engaged in traffic between the Punjab and the whole trans-Hindu Kush country.[13]

Where a mountain system describes a semi-circular course, its transit routes tend to converge on the inner side, and at their foci fix the sites of busy commercial centers. Turin draws on a long series of Alpine and Apennine routes from the Pass of Giovi (1548 feet or 472 meters) leading up from Genoa on the south, to the Great St. Bernard on the north. Milan gets immense support from the St. Gotthard and Simplon railroads over the Alps, besides wagon routes over

several minor passes. Kulm, Balkh and Kunduz in the piedmont of northern Afghanistan are fed by twenty or more passes over the Hindu Kush and Pamir. Bukhara is the remoter focus of all these routes, and also of the valley highways of the western Tian Shan. It therefore occupies a location which would make it one of the great emporiums of the world, were it not for the expanse of desert to the west and the scantiness of its local water supply, which is tapped farther upstream for the irrigation of Samarkand. In its bazaars are found drugs, dyes and teas from India; wool, skins and dried fruit from Afghanistan; woven goods, arms, and books from Persia; and Russian wares imported by rail and caravan. English goods, which formerly came in by the Kabul route from India, have been excluded since Russia established a protectorate over the province of Bukhara. Across the highlands to the east, the cities of Kashgar and Yarkand, situated in that piedmont zone of vegetation where mountain and desert meet, are enclosed by a vast amphitheater formed by the Tian Shan, the Pamir Highlands, and the Karakorum range. Stieler's atlas marks no less than six trade routes over the passes of these mountains from Kashgar to the headstreams of the Sir-daria and Oxus, and six from Yarkand to the Oxus and Indus. Kashgar is a meeting ground of many nationalities. To its bazaars come traders from China, India, Afghanistan, Bukhara, and Russian Turkestan.[14] The Russian railway up the Sir-daria to Andizhan brings European goods within relatively easy reach of the Terek Davan Pass, and makes serious competition for English wares entering by the more difficult Karakorum Pass from India.[15]

Cities of coastal piedmonts.

Where mountains drop off into a desert, as these Central Asiatic ranges do, their piedmont cities are confined to a narrow zone between mountains and arid waste. Bordering two transit regions of scant population and through travel, they become natural outfitting points, centers of exchange rather than production. Where mountains drop off into the sea and the piedmont therefore becomes a coastal belt, again it borders two transit regions; but here the ports of the desert are replaced by maritime ports, which command the world

thoroughfare of the ocean. They therefore tend to concentrate population and commerce wherever a good harbor coincides with the outlet of a transmontane route, as in Genoa and Bombay.

Piedmonts as colonial or backwoods frontiers.

Since mountains are inhospitable to every phase of the historical movement, they long remain regions of retardation. Hence to their bordering plains they sustain the relation of young undeveloped lands, so that life in their piedmont belts tends to show for a long time all the characteristics of a new colonial frontier. The rim of the Southern Appalachians abundantly illustrates this principle even to-day. During the westward expansion of the American people from 1830 to 1850, the eastern rim of the Rocky Mountains was dotted with trading posts like that of the Missouri Fur Company at the forks of the Missouri River, Forts Laramie and Platte on the North Fork of the Platte, Vrain's Fort and Fort Lancaster on the South Fork, Bent's Fort at the mountain exit of the Arkansas River, and Barclay's in the high Mora Valley of the upper Canadian. These posts gathered in the rich pelts which formed the one product of this highland area susceptible of bearing the cost of transportation to the far away Missouri River. Though they developed into way-stations on the overland trails, when the movement of population to California and Oregon in the forties and fifties made the Rocky Mountains a typical highland transit region, yet they long remained frontier posts.[16] Later the abundant water supply of this piedmont district, as compared with the arid plains below, and the mineral wealth of the mountains concentrated here an agricultural and industrial population.

In Sze Chuan province of western China, the piedmont of a vast highland hinterland shows a similar development. Here the towns of Matang, Sungpan, Kuan Hsien, and even the capital Chengtu, situated in the high Min Valley at the foot of the mountains walling them in on the west, are emporiums for trade with the Tibetans, who bring hither furs, hides and wool from their plateau pastures, and musk from the musk deer on the Koko Nor plains.[17] Just to the north, Sian (Singan), capital of the highland province of Shensi, concentrates the fur trade of a large mountain wilderness to

the west. Several blocks on the main street form a great fur market for the sale of mink and other skins used to line the official robes of mandarins.[18]

Mountain carriers.

Like seas, deserts, and other geographical transit regions, mountains too under primitive conditions develop their professional carriers. These collect in the piedmont, where highway and mule train cease, and where the steep track admits only human beasts of burden, trained by their environment to be climbers and packers. These mountain carriers are found on the Pacific face of the coast ranges of North and South America from the peninsula of Alaska to the Straits of Magellan. They are able to pack from 100 to 160 pounds up a steep grade. The Chilkoot Indians, men, women and children, did invaluable service on the White Horse and Chilkoot passes during the early days of the Klondike rush. They had devised a well-arranged harness, which enabled them better to carry their loads. Farther south in British Columbia the piedmont tribes had once a like importance; there they operated especially from the town of Hope on the lower Frazer River as a distributing center. The Mexican carrier is so efficient and so cheap that he enters into serious competition with modern schemes to improve transportation, especially as the rugged relief of this country makes those schemes expensive.[19] The Indians of the eastern slope of the Andes pack India rubber, in loads of 150 pounds each, from the upper Purus and Madeira rivers up to the Andean plateau at a height of 15,000 feet, and there transfer their burdens to mules for transport down to the Peruvian port of Mollendo.[20]

The retarded mountain peoples on the borders of the Central Asia plateau employ the same primitive means of transportation. The roads leading from the Sze Chuan province of western China over the mountain ranges to Tibet are traversed by long lines of porters, men, women and children, laden with bales of brick tea,[21] the strongest of them shouldering 350 pounds. The Bhutia coolies of Sikkim act as carriers on military and commercial expeditions on the track across the Himalayas between Darjeeling and Shigatze. Colonel Younghusband found that these Bhutias, who were

paid by the job, would carry a pack of 250 to 300 pounds, or three times the usual burden of a Central Asia carrier. Landon cites the case of a Bhutia lady who was said to have carried a piano on her head from the plains up to Darjeeling (7150 feet).[22] In Nepal, women and girls, less often men, have long been accustomed to carry travellers and merchandise over the Himalayan ranges.[23] In the marginal valleys of the Himalayas, like Kashmir and Baltistan, the natives are regularly impressed for *begar* or carrier service on the English military roads to strategic points on the high mountain frontier of the Indian Empire.[24] So the Igorots of the Luzon province of Benguet pack all goods and supplies from Naguilian in the lowlands up 4000 feet in a distance of 25 miles to their little capital of Baguio; for this service they are now paid one peso (46 cents in 1901) a day with food, or ten times as much as under the Spanish rule.[25]

Power of mountain barriers to block or deflect.

If the historical movement slackens its pace at the piedmont slope, higher up the mountain it comes to a halt. Only when human invention has greatly improved communication across the barrier are its obstacles in part overcome. The great highland wall stretching across southern Europe from the Bay of Biscay to the Black Sea long cut off the solid mass of the continent from the culture of the Mediterranean lands. Owing to these mountains Central Europe came late into the foreground of history, not till the Middle Ages. Even the penetrating civilization of Greece reached it only by long detours around the ends of the mountain barrier; by Massilia and the Rhone, by Istria and the Danube, Greek commerce trickled through to the interior of the continent.

Where mountains fail to check, they deflect the historical movement. The wall of the Carpathians, bulwark of Central Europe, split the westward moving Slav hordes in the 6th century, diverting one southward up the Danube Valley to the Eastern Alps, and turning one northward along the German lowlands.[26] The northward expansion of the Romans, rebuffed by the high double wall of the Central Alps, was bent to the westward over the Maritime, Cottine and Savoy Alps, where the barrier offered the shortest and

easiest transmontane routes. Hence Germany received the elements of Mediterranean culture indirectly through Gaul, second-hand and late. The ancient Helvetians, moving southward from northern Switzerland into Gaul, took a route skirting the western base of the Alps by the gap at Geneva, and thus threatened Roman Provincia. Cæsar's campaigns into northern Gaul were given direction by the massive Central Plateau of France.[27] The rugged and infertile area of the Catskills long retarded the westward movement in colonial New York and deflected it northward through the Mohawk depression, which therefore had its long thin line of settlements when the neighboring Catskills were still a "bare spot."

Significance of mountain valleys.

In their valleys, mountains lose something of their barrier nature, and approximate the level of the plains. Here they harbor oases of denser population and easier intercourse. Valleys favor human settlement through the milder climate of their lower elevation, the accumulation of soil on their floors, their sheltered environment, and their command of such routes of communication as the highlands afford. They are the avenues into and within a mountain system, and therefore radically influence its history by their direction and location. The Central Plateau of France, through the valleys of the Allier and upper Loire, is most accessible from the north; therefore in that direction it has maintained its most important historical connections,[28] from the days of Cæsar and Vercingetorix. The massive highland region of Transylvania, which opens long accessible valleys westward toward the plains of the Theiss and Danube, has since the eleventh century received thence Hungarian immigration and political dominion.[29] Its dominant Roumanian population, however, seems to have fled thither from the Tartar-swept plains to the southeast.

The anthropo-geography of mountain valleys depends upon the structure of the highlands themselves, whether they are fold mountains, whose ranges wall in longitudinal valleys, or dissected plateaus, whose valleys are mostly transverse river channels leading from the hydrographic center out to the rim of the highlands. Longitudinal valleys are not only long, but also broad as a rule and often show a nearly level

floor.[30] They therefore form districts of considerable size, fertility, and individuality, and play distinct historical rôles in the history of their respective highlands. Such are the upper Rhone Valley with its long line of flourishing towns and villages, the Hither Rhine, the Inn of the Tyrol and the Engadine, the fertile trough of the meandering Isère above Grenoble,[31] the broad Orontes-Leontes valley between the Lebanon and Anti-Lebanon where Kadesh and Baalbec were once the glory of northern Syria. Such is the central trough of the Appalachian Mountains, known as the Great Appalachian Valley, seventy-five miles wide, subdivided into constituent valleys of similar character by parallel, even-crested ridges following the trend of the mountains. These are drained by broad, leisurely rivers, bordered by fertile farms and substantial towns. Transverse valleys, on the other hand, are generally narrow, with steep slopes rising almost from the river's edge and supporting only small villages and farms. A comparison of the spacious, smooth-floored valley of Andermatt with the wild Reuss gorge, of the fertile and populous Shenandoah Valley in the Southern Appalachians with the cañon of the Kanawha in the Cumberland Plateau, makes the contrast striking enough.

Longitudinal valleys.

Longitudinal valleys, by reason of their length and their branching lateral valleys, are the natural avenues of communication within the mountains themselves. They therefore give a dominant direction to such phases of the historical movement as succeed in passing the outer barrier. The series of parallel ranges which strike off from the eastern end of the Tibetan plateau southward into Farther India have directed along their valleys the main streams of Mongolian migration and expansion, heading them toward the river basins of Burma and Indo China, and away from India itself.[32] While Tibetan elements have during the ages slowly welled over the high Himalayan brim and trickled down toward the Gangetic plain, Burma has been deluged by floods of Mongolians pouring down the runnels of the land. A carriage road follows the axis of the Central Alps from Lake Geneva to Lake Constance by means of the upper Rhone, Andermatt, and upper Rhine valleys, linked by the Furca and

Oberalp passes. The Roman and Medieval routes northward across the Central Alps struck the upper Rhine Valley above Coire, (the ancient Curia Rhaetorum); this natural groove gave them a northeastward direction, and made them emerge from the mountains directly south of Ulm, which thereby gained great importance. The trade routes from Damascus and Palmyra which once entered the Orontes-Leontes trough in the Lebanon system found their Mediterranean termini south near Tyre or north near Antioch, and thus contributed to the greatness of those ancient emporiums. The Great Appalachian Valley used to be a highway for the Iroquois Indians, when they took the warpath against the Cherokee tribes of Tennessee. Later it gave a distinct southwestward trend to pioneer movements of population within the mountains, blending in its common channel the Quakers, Germans and Scotch-Irish from Pennsylvania, with the English and Huguenot French of the more southern colonies. In the Civil War its fertile fields were swept by marching armies, all the way from Chattanooga to Gettysburg.

Passes in mountain barriers.

The barrier nature of mountains depends upon their height and structure, whether they are massive, unbroken walls like the Scandinavian Alps and the Great Smoky range; or, like the Welsh Highlands and the Blue Ridge, are studded with low passes. The Pyrenees, Caucasus and Andes, owing to the scarcity and great height of their passes, have always been serious barriers. The Pyrenees divide Spain from France more sharply than the Alps divide Italy from France; owing to their rampart character, they form the best and most definite natural boundary in Europe.[38] Epirus and Aetolia, fenced in by the solid Pindus range, took little part in the common life of ancient Greece; but the intermittent chains of Thessaly offered a passway between Macedon and Hellas. The Alps have an astonishing number of excellent passes, evenly distributed for the most part. These, in conjunction with the great longitudinal valleys of the system, offer transit routes from side to side in any direction. The Appalachian system is some three hundred miles broad and thirteen hundred miles long, but it has many easy gaps among its parallel ranges, so that it offered natural though cir-

cuitous highways to the early winners of the West. The long line (400 miles) of the Hindu Kush range, high as it is, forms no strong natural boundary to India, because it is riddled with passes at altitudes from 12,500 to 19,000 feet.[34] The easternmost group of these passes lead down to Kashmir, and therefore lend this state peculiar importance as guardian of these northern entrances to India.[35] The Suleiman Mountains along the Indo-Afghan frontier are an imperfect defence for the same reason. They are indented by 289 passes capable of being traversed by camels. The mountain border of Baluchistan contains 75 more, the most important of which focus their roads upon Kandahar. Hence the importance to British India of Kandahar and Afghanistan. Across this broken northwest barrier have come almost all the floods of invasion and immigration that have contributed their varied elements to the mixed population of India. Tradition, epic and history tell of Asiatic highlanders ever sweeping down into the warm valley of the Indus through these passes; Scythians, Aryans, Greeks, Assyrians, Medes, Persians, Turks, Tartars, and Mongols have all traveled these rocky roads, to rest in the enervating valleys of the peninsula.[36]

Breadth of mountain barriers.

Mountains folded into a succession of parallel ranges are greater obstructions than a single range like the Erz, Black Forest, and Vosges, or a narrow, compact system like the Western Alps, which can be crossed by a single pass. Owing to this simple structure the Western Alps were traversed by four established routes in the days of the Roman Empire. These were: I. The *Via Aurelia* between the Maritime Alps and the sea, where now runs the Cornice Road. II. The *Mons Matrona* (Mont Genevre Pass, 6080 feet or 1854 kilometers) between the headstream of the Dora Riparia and that of the Durance, which was the best highway for armies. III. The Little St. Bernard (7075 feet or 2157 meters), from Aosta on the Dora Baltea over to the Isère and down to Lugdunum (Lyons). IV. The Great St. Bernard (8109 feet or 2472 meters) route, which led northward from Aosta over the Pennine Alps to Octodurus at the elbow of the upper Rhone, where Martigny now stands. Across the broad double

rampart of the Central Alps the Roman used chiefly the Brenner route, which by a low saddle unites the deep reëntrant valleys of the Adige and Inn rivers, and thus surmounts the barrier by a single pass. However, a short cut northward over the Chalk Alps by the Fern Pass made closer connection with Augusta Vindelicorum (Augsburg). The Romans seem to have been ignorant of the St. Gotthard, which, though high, is the summit of an unbroken ascent from Lake Maggiore up the valley of the Ticino on one side, and from Lake Lucerne up the Reuss on the other.

Mountains which spread out on a broad base in a series of parallel chains, and through which no long transverse valleys offer ready transit, form serious barriers to every phase of intercourse. The lofty boundary wall of the Pyrenees, a folded mountain system of sharp ranges and difficult passes, has successfully separated Spain from continental Europe; it has given the Iberian Peninsula, in the course of a long history, closer relations with Morocco than with its land neighbor France. It thus justifies the French saying that "Africa begins at the Pyrenees." The Andalusian fold mountains stretching across southern Spain in a double wall from Trafalgar to Cape Nao, accessible only by narrow and easily defended passes, enabled the Moors of Granada to hold their own for centuries against the Spaniard Christians. The high thin ridges of the folded Jura system, poor in soil and sparsely populated, broken by occasional "cluses" or narrow water-gaps admitting the rivers from one elevated longitudinal valley to another, have always been a serious hindrance to traffic.[37]

Circuitous routes through folded mountains.

Such mountains can be crossed only by circuitous routes from pass to pass, ascending and descending each range of the system. The Central Alps, grooved by the longitudinal valleys of the upper Rhone, Rhine and Inn, make transit travel a series of ups and downs. The northern range must be crossed by some minor pass like the Gemmi, (7553 feet) or Panixer (7907 feet) to the longitudinal valleys, and the southern range again by the Simplon (6595 feet), San Bernadino (6768 feet), Splügen (6946 feet) or Septimer (7582 feet) to the Po basin. Across the corrugated

highland of the Hindu Kush, lying between the plains of the Indus and the Oxus, the caravans of western Asia seek the market of the Punjab by a circuitous route through the Hajikhak Pass (12,188 feet) or famous Gates of Bamian over the main range of the Hindu Kush, by the Unai Pass over the Paghman Mountains to Kabul at 5740 feet, and then by gorges of the Kabul River and the Khaibar Pass (6825 feet) down to Peshawar. This road presents so many difficulties that caravans from Turkestan to India prefer another route from Merv up the valley of the Heri-Rud through the western hills of the Hindu Kush to Herat, thence diagonally southeast across Afghanistan to Kandahar, and thence by the Bolan Pass down to the Sind. The broad, low series of forested mountains consisting of the Vindhyan and Kaimur Hills, reinforced by the Satpura, Kalabet, Gawilgarh ranges, Mahadeo Hills, Maikal Range and Chutia Nagpur Plateau as a secondary ridge to the south, forms a double barrier across the base of peninsular India. It divides the Deccan from Hindustan so effectually that it has sufficed to set limits to any Aryan advance *en masse* southward. It kept southern India isolated, and admitted only later Aryan influences which filtered through the barrier. To people accustomed to treeless plains, these wide belts of wooded hills were barrier enough. Even a few years ago their passes were dreaded by cartmen; most of the carriage of the country was effected by pack-bullocks. Even when roads were cleared through the forests, they were likely to be rendered impassable by torrential rains.[38]

Dominant transmontane routes.

Where a broad, complex mountain system contracts to narrow compass, or is cut by deep reëntrant valleys leading up to a single pass, the transmontane route here made by nature assumes great historical importance. The double chain of the mighty Caucasus, from 120 to 150 miles wide and 750 miles long, stretches an almost insuperable barrier between the Black Sea and the Caspian. But nearly midway between these two seas it is constricted to only 60 miles by a geographical and geological gulf, which penetrates from the steppes of Russia almost to the heart of the system.[39] This gulf forms the high valley of the Terek River, beyond

whose headstream lies the Dariel defile (7503 feet or 2379 meters), which continues the natural depression across to the short southern slope. All the other passes of the Caucasus are 3000 meters or more high, lie above snow line and are therefore open only in summer. The Dariel Pass alone is open all the year around.[40] Here runs the great military road from Vladicaucas to Tiflis, which the Russians have built to control their turbulent mountaineer subjects; and here are located the Ossetes, the only people among the variegated tribes of the whole Caucasus who occupy both slopes. All the other tribes and languages are confined to one side or the other.[41] Moreover, the Ossetes, occupying an exposed location in their highway habitat, lack the courage of the other mountaineers, and yielded without resistance to the Russians. In this respect they resemble the craven-spirited Kashmiri, whose mountain-walled vale forms a passway from Central Asia down to the Punjab.

Brenner route.

The Pass of Dariel, owing to its situation in a retarded corner of Asia, has never attained the historical importance which attaches to the deep saddle of the Brenner Pass (4470 feet) in the Central Alps. Uniting the reëntrant valleys of the Inn and Adige rivers only 2760 feet above the Inn's exit from the mountains upon the Bavarian plateau, it forms a low, continuous line of communication across the Central Alps. The Brenner was the route of the Cimbri invading the Po Valley, and later of the Roman forces destined for frontier posts of the Empire on the upper Danube. In the Middle Ages it was the route for the armies of the German Emperors who came to make good their claim to Italy. By this road came the artists and artisans of the whole north country to learn the arts and crafts of beauty-loving Venice. From the Roman road-makers to the modern railroad engineer, with the concomitant civilization of each, the Brenner has seen the march of human progress.

Pass of Belfort.

Farther to the west, the wall of highlands stretching across southern Europe is interrupted by a deep groove formed by the mountain-flanked Rhone Valley and the Pass of Belfort, or Burgundian Gate, which lies between the Vosges and Jura system, and connects the Rhone road with the long

rift valley of the middle Rhine. This pass, broad and low (350 meters or 1148 feet) marks the insignificant summit in the great historic route of travel between the Mediterranean and the North Sea, from the days of ancient Etruscan merchants to the present. This was the route of the invading Teuton hordes which the Roman Marius defeated at Aquae Sextiae, and later, of the Germans under Ariovistus, whom Cæsar defeated near the present Mühlhausen. Four centuries afterward came the Alamannians, Burgundians and other Teutonic stocks, who infused a tall blond element into the population of the Rhone Valley.[42] The Pass of Belfort is the strategic key to Central Europe. Here Napoleon repeatedly fixed his military base for the invasion of Austria, and hither was directed one division of the German army in 1870 for the invasion of France. The gap is traversed to-day by a canal connecting the Doubs and the Rhine and by a railroad, just as formerly by the tracks of migrating barbarians.

Mohawk route.

The natural depression of the Mohawk Valley, only 445 feet (136 meters) above sea level, is the only decided break across the entire width of the long Appalachian system. This fact, together with its ready accessibility from the Hudson on the east and Lake Ontario on the west, lent it importance in the early history of the colonies, as well as in the later history of New York. It was an easy line of communication with the Great Lakes, and gave the colonists access to the fur trade of the Northwest, then in the hands of the French. So when French and English fought for supremacy in the New World, the Mohawk and Hudson valleys were their chief battleground; elsewhere the broad Appalachian barrier held them apart. Again in the Revolution, control of the Mohawk-Hudson route was the objective of the British armies mobilized on the Canadian frontier, because it alone would enable them to co-operate with the British fleet blockading the coast cities of the colonies. In the War of 1812, it was along this natural transmontane highway that supplies were forwarded to the remote frontier, to support Perry's fight for control of the Great Lakes. The war demonstrated the strategic necessity of a protected, wholly American line of water communication between the Hudson and our western

frontier, while the commercial and political advantage was obvious. Hence a decade after the conclusion of the war, this depression was traced by the Erie Canal, through which passed long lines of boats to build up the commercial greatness of New York City.

Height in mountain barriers.

Other structural features being the same, mountains are barriers also in proportion to their height; for, with few exceptions, the various anthropo-geographic effects of upheaved areas are intensified with increase of elevation. Old, worn-down mountains, like the Appalachians and the Ural, broad as they are, have been less effective obstacles than the towering crests of the Alps and Caucasus. The form of the elevation also counts. Easy slopes and flat or rounded summits make readier transit regions than high, thin ridges with escarpment-like flanks. Mountains of plateau form, though reaching a great altitude, may be relatively hospitable to the historical movement and even have a regular nomadic population in summer. The central and western Tian Shan system is in reality a broad, high plateau, divided into a series of smoothly floored basins and gently rolling ridges lying at an elevation of 10,000 to 12,000 feet above the sea. Its pamirs or plains of thick grass, nourished by the relatively heavy precipitation of this high altitude, and forming in summer an island of verdure in the surrounding sea of sun-scorched waste, attract the pastoral nomads from all the bordering steppes and deserts.[43] Thus it is a meeting place for a seasonal population, sparse and evanescent, but its uplifted mass holds asunder the few sedentary peoples fringing its piedmont. The corrugated dome of the Pamir highland, whose valley floors lie at an elevation of 11,000 to 13,000 feet, draws to its summer pastures Kirghis shepherds from north, east and west; and their flocks in turn attract the raids of the marauding mountaineers occupying the Hunza Valley to the south. The Pamir, high but accessible, was a passway in the tenth century for Chinese caravans bound from "Serica" or the "Land of Silk" to the Oxus River and the Caspian. Here Marco Polo and many travelers after him found fodder for their pack animals and food for themselves, because they

could always purchase meat from the visiting shepherds. The possibilities of the Pamir as a transit region are apparent to Russia, who in 1886 annexed most of it to the government of Bukhara.

Contrasted accessibility of opposite slopes.

Mountains are seldom equally accessible from all sides. Rarely does the crest of a system divide it symmetrically. This means a steep, difficult approach to the summit from one direction, and a longer, more gradual, and hence easier ascent from the other. It means also in general a wide zone of habitation and food supply on the gentler slope, a better commissary and transport base whence to make the final ascent, whether in conquest, trade or ethnic growth. Mountain boundaries are therefore rarely by nature impartial. They do not umpire the great game of expansion fairly. They lower the bars to the advancing people on one side, and hold them relentlessly in place to the other. To the favored slope they give the strategic advantage of a swift and sudden descent beyond the summit down the opposite side. The political boundary of France along the watershed of the Vosges Mountains is backed by a long, gradual ascent from the Seine lowland and faces a sharp drop to the rift valley of the middle Rhine. Its boundary along the crest of the Alps from Mont Blanc to the Mediterranean brings over two-thirds of the upheaved area within the domain of France, and gives to that country great advantages of approach to the Alpine passes at the expense of Italy. With the exception of the ill-matched conflict between the civilized Romans and the barbarian Gauls, it is a matter of history that from the days of Hannibal to Napoleon III, the campaigns over the Alps from the north have succeeded, while those from the steep-rimmed Po Valley have miscarried. The Brenner route favored alike the Cimbri hordes in 102 B. C. and later the medieval German Emperors invading Italy from the upper Danube. The drop from the Brenner Pass to Munich is 2800 feet; to Rovereto, an equally distant point on the Italian side, the road descends 3770 feet.

Its ethnic effects.

The inequality of slope has ethnic as well as political effects, especially where a latitudinal direction also makes a sharp contrast of climate on the two sides of the mountain

system. Except in the Roman period, the southern face of the Alps has been an enclosing wall to the Italians. The southern cultivator penetrated its high but sunny valleys only when forced by poverty, while the harsh climate on the long northern slope effectively repelled him. On the other hand, Switzerland has overstepped the Alpine crest in the province of Ticino and thrust its political boundary in a long wedge down to the lowland of the Po near Como; and the Alpine race, spilling everywhere over the mountain rim into the inviting Po basin, has given to this lowland population a relatively broad skull, blond coloring and tall figure, sharply contrasted with the pure Mediterranean race beyond the crest of the Apennines.[44]

The long northward slope of the Alps in Switzerland and Tyrol, and the easy western grade toward France, have enabled Germanic and Gallic influences of various kinds to permeate the mountains. A strong element of blond, long-headed Germans mingles in the population of the Aar and Rhine valleys up to the ice-capped ridge of the Glarner and Bernese Alps,[45] while the virile German speech has pushed yet farther south to the insuperable barrier of the Monte Rosa group. The abrupt southward slope of the Himalayas has repelled ethnic expansion from the river lowlands of northern India, except in the mountain valleys of the Punjab streams and Nepal, where the highland offered asylum to the Rajput race when dislodged by a later Aryan invasion, or when trying their energies in expansion and conquest.[46] The Tibetan people, whose high plateaus rise almost flush with the Himalayan passes, have everywhere trickled through and given a Mongoloid mountain border to Aryan India,[47] even though their speech has succumbed to the pervasive Aryan language of the piedmont, and thus confused the real ethnic boundary. [See map page 102.] The retarded and laborious approach of British "influence" up this steep ascent to Lhassa, as opposed to the long established suzerainty of the Chinese Emperor in Tibet, can be attributed in part to the contrasted accessibility from north and south.

Persistence of barrier nature.

Mountains influence the life of their inhabitants and their

neighbors fundamentally and variously, but always reveal their barrier nature. For the occupants of one slope they provide an abundant rainfall, hold up the clouds, and rob them of their moisture; to the leeward side they admit dry winds, and only from the melting snow or the precipitation on their summits do they yield a scanty supply of water. The Himalayas are flanked by the teeming population of India and the scattered nomadic tribes of Tibet. Mountains often draw equally clear cut lines of cleavage in temperature. The Scandinavian range concentrates upon Norway the warm, soft air of the Atlantic westerlies, while just below the watershed on the eastern side Sweden feels all the rigor of a sub-Arctic climate. In history, too, mountains play the same part as barriers. They are always a challenge to the energies of man. Their beauty, the charm of the unknown beyond tempts the enterprising spirit; the hardships and dangers of their roads daunt or baffle the mediocre, but by the great ones whose strength is able to dwarf these obstacles is found beyond a prize of victory. Such were Hannibal, Napoleon, Suvaroff, Genghis Khan, and those lesser heroes of the modern work-a-day world who toiled across the Rockies and Sierras in the feverish days of '49, or who faced the snows of Chilkoot Pass for the frozen gold-fields of the Yukon.

Importance of mountain passes.

For migrating, warring and trading humanity therefore, the interest of the mountains is centered in the passes. These are only dents or depressions in the great up-lifted crest, or gaps carved out by streams, or deeper breaches in the mountain wall; but they point the easiest pathway to the ultramontane country, and for this reason focus upon themselves the travel that would cut across the grain of the earth's wrinkled crust. Their influence reaches far. The Brenner, by its medieval trade, made the commercial greatness of Augsburg, Ratisbon, Nuremberg, and Leipzig to the north, and promoted the growth of Venice to the south. The Khaibar Pass and the Gates of Herat in Afghanistan have for long periods dominated the Asiatic policy of Russia and British India. The Mohawk depression and Cumberland Gap for decades gave direction to the streams of population moving westward into the Mississippi basin in the early his-

tory of the Republic. Where Truckee Pass (7017 feet) makes a gash in the high ridge of the Sierra Nevada, the California Trail in 1844 sought the line of least resistance across the barrier mass, and deposited its desert-worn immigrants about the Sacramento Valley and San Francisco Bay. There they made a nucleus of American population in Mexican California, and in 1846 became the center of American revolt.

Persistent influence of passes.

Though modern engineering skill, especially when backed by a political policy, may cause certain passes to gain in historical importance at the cost of others, the rule holds that passes are never quite insignificant. Their influence is persistent through the ages. They are nature-made thoroughfares, traversed now by undisciplined hordes of migrating barbarians, now by organized armies, now by the woolly flocks and guardian dogs of the nomad shepherd, now by the sumpter mule of the itinerant merchant, now by the wagon-trains of over-mountain settlers, now by the steam engine panting up the steep grade. Nowhere does history repeat itself so monotonously, yet so interestingly as in these mountain gates. In the Pass of Roncesvalles, notching the western Pyrenees between Pamplona in Spain and St. Etienne in France, fell the army of Charlemagne surprised and beset by the mountain tribes in 778;[48] through this breach the Black Prince in 1367 led his troops to the victory of Navarette; in the Peninsular War a division of Wellington's army in 1813 moved northward up this valley, driving the French before them; and by this route Soult advanced southward across the frontier for the relief of the French forces shut up in Pamplona. The history of Palestine may be read in epitome in the annals of the Vale of Jezreel, where the highlands of Palestine sink to a natural trough before rising again to the hill country of Galilee and the mountain range of high Lebanon. This was the avenue for war and trade between the Nile and Euphrates, between Africa and Asia. Here the Canaanites expanded eastward from the coast, cutting off northern Israel in Galilee from Samaria and Judea. Here Gideon turned back the incursions of the Midianites or western Arabs. Here was the open road for Assyrians, Egyptians, for Greek armies under Antiochus, and Roman

armies under Pompey, Mark Antony, Vespasian and Titus. Hither came the Saracens from the east in 634 A. D. to rout the Greek army, and later the Crusaders from the west, to secure with castle and fortress this key to the Holy Land. Finally, hither came Napoleon from Egypt in 1799 on his way to the Euphrates.[49]

Geographic factors in the historical importance of passes.

The historical importance of passes tends to increase with the depth of the depression, since the lowest gap in a range relegates the others to only occasional or local use; and with their rarity, in consequence of which intercourse between opposite slopes is concentrated upon one or two defiles. The low dips of the Central American Cordilleras to 262 feet (80 meters) at Panama, 151 feet (46 meters) in the Nicaraguan isthmus, and 689 feet (210 meters) at Tehuantepec, present a striking contrast both orographically and historically to the South American Andes, where from the equator to the Uspallata or Bermejo Pass (12,562 feet or 3842 meters) back of Valparaiso, a stretch measuring 33 degrees of latitude, the passes all reach or exceed 10,000 feet or 3000 meters. The southern or Pennine range of the Alps, stretching as a snow-wrapped barrier from Mont Blanc 90 miles to the central Alpine dome of the St. Gotthard, is notched only by the Great St. Bernard and Simplon passes, which have therefore figured conspicuously in war and trade, since very early times. The Pass of Thermopylæ, as the only route southward along the flank of the Pindus system, figures in every land invasion of Greece from Xerxes to the Greek war of independence. All movements back and forth across the Caucasus wall have been confined to the Pass of Dariel and the far lower Pass of Derbent, or *Pylæ Albaniæ* of the ancients, which lies between the Caspian and the last low spurs of the mountains as they drop down to the sea. The latter, as the easier of the two passes, has had a longer and richer history. It alone enabled the ancient Persians temporarily to force a wedge of conquest to the northern foot of the Caucasus, and it has been in all ages a highway for peoples entering Persia and Georgia from the north. It has so far been the only practicable route for a railway from the Russian steppes to the southern base of the Caucasus. While Vladicaucas and Tif-

lis have direct connection by the military highway over the Pass of Dariel, the railroad between these two points makes a detour of 300 miles to the east.

Intermarine mountains as a rule offer the easiest passways where they sink to meet the flanking seas. The Pyrenees are crossed by only two railroads, the Bayonne-Burgos line, along the shore of the Bay of Biscay, and the Narbonne-Barcelona line, overlooking the Mediterranean. Between these extremities the passes are very high and only two are practicable for carriages, the Col de la Perche (5280 feet or 1610 meters) between the valleys of the Tet and the upper Segre, and the Port de Canfranc (7502 feet or 2288 meters) on the old Roman road from Saragossa to Oloron. The coastal road around the eastern end of the Cheviot Hills has been the great intermediary between England and Scotland. It was the avenue for early Teutonic expansion into the Scotch Lowlands, the thoroughfare for all those armies which for centuries made Berwick a chronic battleground. **Intermarine mountains.**

For purposes of trade these intermarine mountains are less serious barriers, because they can be avoided by an easier and cheaper sea route. Hence on each side of such ranges grow up active ports, like Narbonne and Barcelona, Bayonne and Bilbao with San Sebastian, on the piedmont seaboard of the Pyrenees; Petrovsk and Baku on the Caspian rim of the Caucasus, balancing the Crimean ports and Poti with Trebizond on the Black Sea. Analogous is the position of Genoa and Marseilles in relation to the Maritime Alps. Such ports are inevitably the object of attack in time of hostilities. In the Peninsular War almost the first act of the French was to seize Barcelona, San Sebastian and Bilbao; and throughout the seven years of the conflict these points were centers of battle, blockade and siege. If Russia ever tries to wrench the upper Euphrates Valley from Turkey, Trebizond will repeat the history of Barcelona in the Peninsular War.

As the world's roads are used primarily for commerce, pass routes rank in importance according to the amount of trade which they forward; and this in turn is decided by the contrast in the lands which they unite. The passes of the Alps and the Pass of Belfort have been busy thorough- **Pass roads between regions of contrasted production.**

fares from the early Middle Ages, because they facilitate exchanges between the tropical Mediterranean and the temperate regions of Central Europe. Or the contrast may be one of economic and social development. The Mohawk depression forwards the grain of the agricultural Northwest in return for the manufactured wares of the Atlantic seaboard. The passes of the Asiatic ranges connect the industrial and agricultural lowlands of India and China with the highland pastures of Mongolia, Tibet, Afghanistan and Russian Turkestan. Hence they forward the wool, skins, felts, cloth and carpets of the wandering shepherds in exchange for the food stuffs and industrial products of the fertile, crowded lowlands. Where passes open a highway for inland countries to the sea, their sphere of influence is greatly increased. San Francisco, New York, Marseilles, Genoa, Venice, Beirut and Bombay are seaports which owe their importance in no small degree to dominant pass routes into their hinterland.

Passes determine transmontane roads.

In plains and lowlands highways may run in any direction expediency suggests, but in mountain regions the pass points the road. In very high ranges there is no appeal from this law; but in lower systems and especially in old mountains which have been rounded and worn down by ages of denudation, economic and social considerations occasionally transcend orographical conditions in fixing the path of highways. Scarcely less important than pass or gap is the avenue of approach to the same. This is furnished by lateral or transverse valleys of erosion. The deeper their reëntrant angles cut back into the heart of the highlands, the more they facilitate intercourse and lend historical importance to the pass route. The Alpine passes which are approached by a single valley from each side are those crossed by railroads to-day,—Mont Cenis, Simplon, St. Gotthard and the Brenner. The Alpine chain is trenched on its inner or southern side by a series of transverse erosion valleys, such as the Dora Baltea, Sesia, Tosa, Ticino, Adda, Adige, and Tagliamento, which carry roads up to the chief Alpine passes. The coincidence of the Roman and medieval roads over the Alps with the modern railroads is striking, except in the single point of elevation. Railroads tend to follow lower levels. Modern engineering skill enables

them to tunnel the crest, to cut galleries in the perpendicular walls of gorges, and to embank mountain torrents against the spring inundation of the roadbed, where it drops to the valley floor.

Navigable river approaches to passes.

Where gaps are low and the approaching waters are navigable, at least for the small craft of early days, they combine to enhance the historical importance of their routes. The Mohawk River, navigable for the canoe of Indian and fur trader, greatly increased travel and traffic through the Mohawk depression. The Pass of Belfort is the greatest historic gateway of western Europe, chiefly because it unites the channels of the Rhone, Saône and Rhine. Lake Lucerne brings the modern tourist by boat to the foot of the railroad ascent to the St. Gotthard Pass, as the long gorge of Lake Maggiore receives him at the southern end. Lake Maggiore is the water outlet also of the Simplon Pass from the upper Rhone, the Lukmanier (6288 feet or 1917 meters) from the Hither Rhine, and the San Bernadino (6766 feet or 2063 meters) from the Hinter Rhine.[50] This geographical fact explains the motive of Swiss expansion in the fifteenth century in embracing the Italian province of Ticino and the upper end of Lake Maggiore. A significance like that of the Swiss and Italian lakes for the Alpine passes appears emphasized in the Sogne Fiord of Norway. This carries a marine highway a hundred miles into the land; from its head, roads ascend to the only two dents in the mountain wall south of the wide snowfield of the Jotun Fjeld, and they lead thence by the valleys of Hallingdal and Valders down to the plains of Christiania.

Types of settlements in the valley approaches.

Genuine mountain passes have only emergency inhabitants —the monks and dogs of the hospice, the road-keepers in their refuge huts or *cantonière*, or the garrison of a fort guarding these important thoroughfares. The flanking valleys of approach draw to themselves the human life of the mountains. Their upper settlements show a certain common physiognomy, born of their relation to the barren transit region above, except in those few mountain districts of advanced civilization where railroads have introduced through traffic over the barrier. At the foot of the final

ascent to the pass, where often the carriage road ends and where mule-path or foot-trail begins, is located a settlement that lives largely by the transmontane travel. It is a place of inns, hostelries, of blacksmith shops, where in the busy season the sound of hammer and anvil is heard all night; of stables and corrals crowded with pack and draft animals; of storehouses where the traveler can provide himself with food for the journey across the barren, uninhabited heights. It is the typical outfitting point such as springs up on the margin of any pure transit region, whether mountain or desert. Such places are Andermatt and Airolo, lying at an altitude of 4000 feet or more on the St. Gotthard road, St. Moritz below the Maloja Pass, Jaca near the Pass de Canfranc over the Pyrenees, Kugiar and Shahidula[51] at an elevation of 10,775 feet or 3285 meters on the road up to the Karakorum Pass (18,548 feet or 5655 meters), which crosses the highest range of the Himalayas between Leh in the upper Indus Valley and Yarkand in Chinese Turkestan.

Lower settlements.

Farther down the transverse valley the type of settlement changes where side valleys, leading down from other passes, converge and help build up a distributing center for a considerable highland area. Such a point is Chiavenna in northern Italy, located above the head of Lake Como at the junction of the Mera and Liro valleys, which lead respectively to the Splügen and Maloja passes. It lies at an altitude of 1090 feet (332 meters) and has a population of 4000. Such a point is Aosta (1913 feet or 583 meters elevation) in the Dora Baltea Valley, commanding the Italian approaches to the Great St. Bernard Pass, and the less important Col de Fenêtre leading to the upper Rhone, the Little St. Bernard highway to the valley of the Isère, and Col de la Seigne path around the Mont Blanc range to the valley of the Arve. Aosta was an important place in the Roman period and has to-day a population of about 8000. Kokan, in the upper Sir-Daria Valley in Russian Turkestan, commands the approach to the passes of the western Tian Shan and the northern Pamir. Its well-stocked bazaars, containing goods from Russia, Persia and India, testify to its commercial location.

Pass cities and their markets.

When the highland area is very broad and therefore necessitates long transit journeys, genuine pass cities develop at high altitudes, and become the termini of the transmontane trade. Such is the Leh (11,280 feet or 3439 meters) on the caravan route from Central Asia over the Karakorum Pass down to Kashmir, and such is Srinagar (5252 feet or 1603 meters) in Kashmir. To their markets come caravans from Chinese Turkestan, laden with carpets and brick tea, and Tibetan merchants from Lhassa, bringing wool from their highland pastures to exchange for the rice and sugar of lowland India.[52] Leh is conveniently situated about half way between the markets of India and Central Asia. Therefore it is the terminus for caravans arriving from both regions, and exchange place for products from north and south. Seldom do caravans from either direction go farther than this point. Here the merchants rest for a month or two and barter their goods. Tents of every kind, camels, yaks, mules and horses, coolie transports of various races, men of many languages and many religions, give to this high-laid town a truly cosmopolitan stamp in the summer time when the passes are open.[53] Kabul, which lies at an altitude of nearly 6000 feet near the head of the Kabul River, is the focus of numerous routes over the Hindu Kush, and dominates all routes converging on the northwest frontier of the Punjab.[54] It is therefore the military and commercial key to India. Its narrow winding streets are obstructed by the picturesque *kafilas* of Oriental merchants, stocked with both Russian goods from the Oxus districts and British goods from India in evidence of its intermediary location.[55]

Occasionally a very high market develops for purely local use. The Indian Himalayan province of Kumaon contains the market town of Garbyang, at an elevation of 10,300 feet or about 3000 meters, on the Kali River road leading by the Lipu Lekh Pass (16,780 feet or 5115 meters) over to Tibet. It has grown up as a trade center for the Dokpa Tibetans, who will not descend below 10,000 feet because their yak and sheep die at a lower altitude.[56] Farther east in the Sikkim border, Darjeeling (7150 feet or 2180 meters elevation) is center of the British wool trade with Tibet.

Often the exchange point moves nearer the summit of the pass, dividing the journey more equally between the two areas of production. Here develops the temporary summer market. High up on the route between Leh and Yarkand is Sasar, a place of unroofed enclosures for the deposit of cotton, silk and other goods left there by the caravans plying back and forth between Leh and Sasar, or Sasar and Yarkand.[57] Nearly midway on the much frequented trade route between Leh and Lhassa, at a point 15,100 feet (nearly 500 meters) above sea level, just below the Schako Pass, lies Gartok in western Tibet, in summer a busy market surrounded by a city of tents, and the summer residence of the two Chinese viceroys, who occupy the only two substantial dwellings in the place. Here at the end of August is held a great annual fair, which is attended by traders from India, Kashmir, Mongolia, Chinese Turkestan, China proper, and Lhassa; but by November the place is deserted. The traders disperse, and the few residents of Gartok, together with the viceroys, retire down the Indus Valley to the more sheltered village of Gargunza (14,140 feet or 4311 meters elevation), which represents the limits of permanent settlement in these altitudes.[58] The Sutlej Valley route from the Punjab to Lhassa is capped near its summit at an altitude of about 5000 meters by the summer market of Gyanema, whose numerous types of tents indicate the various homes of the traders from Lhassa to India.[59]

Pass peoples.

Natural thoroughfares, whether river highways or mountain pass routes, draw to themselves migration, travel, trade and war. They therefore early assume historical importance. Hence we find that peoples controlling transmontane routes have always been able to exert an historical influence out of proportion to their size and strength; and that in consequence they early become an object of conquest to the people of the lowlands, as soon as these desire to control such transit routes. The power of these pass tribes is often due to the trade which they command and which compensates them for the unproductive character of their country. In the eastern Himalayas the Tomos of the Chumbi Valley are intermediaries of trade between Darjeeling and Tibet. In the western

Himalayas, the Kumaon borderland of northern India, which commands some of the best passes, has made its native folk or Bhutias bold merchants who jealously monopolize the trade over the passes to the Tibetan markets. They stretch for a zone of thirty miles south of the boundary from Nepal to Garhwal along the approach to every pass, each sub-group having its particular trade route.[60]

Transit duties.

It is always possible for such pass tribes to levy a toll or transit duty on merchandise, or in lieu of this to rob. Cæsar made war upon the Veragri and Seduni, who commanded the northern end of the Great St. Bernard Pass, in order to open up the road over the Alps, which was traversed by Roman merchants *magno cum periculo magnisque cum portoriis*.[61] The Salassi, who inhabited the upper Dora Baltea Valley and hence controlled the Little St. Bernard wagon road leading over to Lugdunum or Lyons, regularly plundered or taxed all who attempted to cross their mountains. On one occasion they levied a toll of a drachm per man on a Roman army, and on another plundered the treasure of Cæsar himself. After a protracted struggle they were crushed by Augustus, who founded Aosta and garrisoned it with a body of Praetorian cohorts to police the highway.[62] The Iapodes in the Julian Alps controlled the Mount Ocra or Peartree Pass, which carried the Roman wagon road from Aquileia over the mountains down to the valley of the Laibach and the Save. This strategic position they exploited to the utmost, till Augustus brought them to subjection as a preliminary to Roman expansion on the Danube.[63]

Turning to another part of the world, we find that the Afghan tribes commanding the passes of the Suleiman Mountains have long been accustomed to impose transit duties upon caravans plying between Turkestan and India. The merchants have regularly organized themselves into bands of hundreds or even thousands to resist attack or exorbitant exactions. The Afghans have always enforced their right to collect tolls in the Khaibar and Kohat passes, and have thus blackmailed every Indian dynasty for centuries. In 1881 the British government came to terms with them by paying them an annual sum to keep these roads open.[64] Just to the

south the Gomal Pass, which carries the main traffic road over the border mountains between the Punjab and the Afghan city of Ghazni, is held by the brigand tribe of Waziris, and is a dangerous gauntlet to be run by every armed caravan passing to and from India.[65] The Ossetes of the Caucasus, who occupy the Pass of Dariel and the approaching valleys, regularly preyed upon the traffic moving between Russia and Georgia, till the Muscovite government seized and policed the road.[66]

Strategic power of pass states.

The strategic importance of pass peoples tends early to assume a political aspect. The mountain state learns to exploit this one advantage of its ill-favored geographical location. The cradle of the old Savoyard power in the late Middle Ages lay in the Alpine lands between Lake Geneva and the western tributaries of the Po River. This location controlling several great mountain routes between France and Italy gave the Savoyard princes their first importance.[67] The autonomy of Switzerland can be traced not less to the citadel character of the country and the native independence of its people, than to their political exploitation of their strategic position. They profited, moreover, by the wish of their neighbors that such an important transit region between semi-tropical and temperate Europe should be held by a power too weak to obstruct its routes. The Amir of Kabul, backed by the rapacious Afridi tribes of the Suleiman Mountains, has been able to play off British India against Russia, and thereby to secure from both powers a degree of consideration not usually shown to inferior nations. Similarly in colonial America, the Iroquois of the Mohawk depression, who commanded the passway from the Hudson to the fur fields of the Northwest and also the avenue of attack upon the New York settlements for the French in Canada, were early conciliated by the English and used by them as allies, first in the French wars and afterward in the Revolution.

NOTES TO CHAPTER XV

1. For physical effects, see Angelo Mosso, Life of Man on the High Alps. Translated from the Italian. London, 1898.

2. W. Z. Ripley, Races of Europe, pp. 463-465. New York, 1899.

3. Strabo, Book IV, chap. VI, 3.

4. W. Z. Ripley, Races of Europe, pp. 31-32. New York, 1899.

5. Sir Thomas Holdich, India, pp. 32-33. London, 1905.

6. W. Z. Ripley, The Races of Europe, Map p. 439. New York, 1899.

7. Imperial Gazetteer of India, Vol. I, pp. 294-295 Oxford, 1907. Sir Thomas Holdich, India, relief map on p. 171 compared with linguistic map p. 201. London, 1905.

8. Census of India for 1901, Risley and Gait, Vol. I, Part I, p. 2. Calcutta, 1903. B. H. Baden-Powell, The Indian Village Community, pp. 40, 130, 131. London, 1896.

9. Count Gleichen, The Egyptian Sudan, Vol. I, pp. 184, 185, 190. London, 1905.

10. Gustav Nachtigal, *Sahara und Sudan*, Vol. III, pp. 178, 188-192. Leipzig, 1889.

11. Spencer and Gillen, The Northern Tribes of Central Australia, pp. 6, 13. London, 1904.

12. W. Deecke, Italy, p. 365. London, 1904.

13. Sir Thomas Holdich, India, pp. 295-296. London, 1905. G. W. Steevens, In India, pp. 202-204. New York, 1899.

14. Francis Younghusband, The Heart of a Continent, pp. 138, 140, 145, 272-273. London, 1904.

15. E. Huntington, The Pulse of Asia, p. 87. Boston, 1907.

16. E. C. Semple, American History and Its Geographic Conditions, pp. 184-185. Boston, 1903.

17. Isabella Bird Bishop, The Yangtze Valley and Beyond, Vol. II, pp. 70-72, 88, 91. London, 1900.

18. Francis H. Nichols, Through Hidden Shensi, pp. 170-171. New York, 1902.

19. Otis T. Mason, Primitive Travel and Transportation, pp. 450-454, 474-475. Smithsonian Report, Washington, 1896.

20. Col. George E. Church, The Acre Territory and the Caoutchouc Regions of Southwestern Amazonia, *Geog. Jour.* May, 1904. London.

21. M. Huc, Journey through the Chinese Empire, pp. 39-40. New York, 1871.

22. Perceval Landon, The Opening of Tibet, pp. 54-55. New York, 1905.

23. Jean Baptiste Tavernier, Travels in India. Vol. II, p. 264. Translated from the French of 1676. London, 1889.

24. E. F. Knight, Where Three Empires Meet, pp. 231, 274, 276, 286-289. London, 1897.

25. Census of the Philippine Islands, Vol. I, p. 544. Washington, 1905.

26. Joseph Partsch, Central Europe, p. 134. London, 1903.

27. M. S. W. Jefferson, Cæsar and the Central Plateau of France, *Journal of Geog.*, Vol. VI, p. 113. New York, 1897.

28. P. Vidal de la Blache, *Tableau de la Géographie de la France*, p. 276. Paris, 1903.

29. E. A. Freeman, Historical Geography of Europe, Vol. I, p. 450-453. London, 1882.

30. William Morris Davis, Physical Geography, p. 183. Boston, 1899.

31. P. Vidal de la Blache, *Tableau de la Géographie de la France*, p. 260, map p. 261. Paris, 1903.

32. Indian Census for 1901, Risley and Gait, Vol. I, Part I, pp. 1, 2. Calcutta, 1903.

33. Hans Helmolt, History of the World, Vol. IV, p. 479. New York, 1902.

34. Sir Thomas Holdich, India, p. 67, cartogram of Hindu Kush orography. London, 1905.

35. *Ibid.*, pp. 102-104.

36. *Ibid.*, p. 26.

37. J. Partsch, Central Europe, p. 27. London, 1903.

38. B. H. Baden-Powell, The Indian Village Community, pp. 40-45, 111, 116. London, 1896.

39. H. R. Mill, International Geography, pp. 394-395. New York, 1902.

40. Gottfried Merzbacher, *Aus den Hochregionen des Kaukasus*, pp. 73-78. Leipzig, 1901.

41. W. Z. Ripley, The Races of Europe, p. 438. New York, 1899.

42. *Ibid.*, Maps pp. 143, 147, text p. 148.

43. E. Huntington, The Pulse of Asia, pp. 106-109. Boston, 1907.

44. W. Z. Ripley, The Races of Europe, pp. 249-253. New York, 1899.

45. *Ibid.*, p. 282 and cartogram, p. 284.

46. Sir Thomas Holdich, India, p. 201. London, 1905. Imperial Gazetteer of India, Vol. I, p. 295. Oxford, 1907.

47. Census of India, 1901, Ethnographic Appendices, Vol. I, p. 60, by H. H. Risley, Calcutta, 1903. C. A. Sherring, Western Tibet and the British Borderland, pp. 341-353. London, 1906.

48. E. Lavisse, *Histoire de France*, Vol. II, Part 1, p. 294. Paris, 1903.

49. George Adam Smith, Historical Geography of the Holy Land, pp. 383, 384, 391-400, 407, 409. New York, 1897.

50. Wilhelm Deecke, Italy, pp. 20, 21. London, 1904.

51. Francis Younghusband, The Heart of a Continent, pp. 150, 194, 199. London, 1904.

52. E. F. Knight, Where Three Empires Meet, pp. 12, 88, 157-159, 231. London, 1897.

53. *Ibid.*, pp. 173, 177.

54. Sir Thomas Holdich, India, map p. 85, pp. 86, 89. London, 1905.

55. Vambery, *Reise in Mittelasien*, pp. 371-375. Leipzig, 1973.

56. C. A. Sherring, Western Tibet and the British Borderland, p. 136. London, 1906.

57. O. P. Crosby, Tibet and Turkestan, pp. 112-116. New York, 1903.

58. Elisée Reclus, Asia, Vol. II, pp. 50-51. C. A Sherring, Western Tibet and the British Borderland, pp. 146-148, 152, 157, 300-303. London, 1906.

59. *Ibid.*, pp. 326-327.

60. *Ibid.*, pp. 4, 61-64, 310-311.

61. *Bello Gallico*, Book III, chap. I.

62. Strabo, Book IV, chap. VI, 7, 11.

63. Strabo, Book IV, chap. VI, 10.

64. Sir Thomas Holdich, The Indian Borderland, p. 48. London, 1909.

65. H. R. Mill, International Geography, p. 467. New York, 1902.

66. Pallas, Travels Through the Southern Provinces of Russia, Vol. I, p. 431. London, 1812.

67. E. A. Freeman, Historical Geography of Europe, Vol. I, pp. 286-287. London, 1882.

CHAPTER XVI

INFLUENCES OF A MOUNTAIN ENVIRONMENT

Zones of altitude.

THERE are zones of latitude and zones of altitude. To every mountain region both these pertain, resulting in a nice interplay of geographic factors. Every mountain slope from summit to piedmont is, from the anthropo-geographical standpoint, a complex phenomenon. When high enough, it may show a graded series of contrasted complementary locations, closely interdependent grouping of populations and employments, every degree of density from congestion to vacancy, every range of cultural development from industrialism to nomadism. The southern slope of the Monte Rosa Alps, from the glacier cap at 4500 meters to the banks of the Po River, yields within certain limits a zonal epitome of European life from Lapland to the Mediterranean. The long incline from the summit of Mount Everest (8840 meters) in the eastern Himalayas, through Darjeeling down to sea level at Calcutta, comprises in a few miles the climatic and cultural range of Asia from Arctic to Tropic.

Politico-economic value of varied relief.

For the state, a territory of varied relief is highly beneficial, because it combines manifold forms of economic activity, a wide range of crops, areas of specialized production mutually interdependent. It induces a certain balance of urban and rural life, which contributes greatly to the health of the state.[1] The steep slopes of Dai Nippon, fertile only under spade tillage, will forever insure Japan the persistence of a numerous peasantry. For geological and geographical reasons, as from national motives, therefore, Japan will probably never sacrifice its farmer to its industrial class, as England has done. On the other hand, contrasted reliefs on a great territorial scale tend to invade political solidarity. Tidewater and mountain Virginia were poor running-mates for a century before the Civil War, and then the mountain region broke out of harness. Geographical contrasts made the

unification of Germany difficult, and yet they have added to the economic and national strength of the Empire. The history of Switzerland shows the high Alpine cantons always maintaining a political tug of war with the cantons of the marginal plain, and always suffering a defeat which was their salvation.

Relief and climate.

The chief effect of a varied relief is a varied climate. This changes with altitude in much the same way as with latitude. Heat and absolute humidity diminish, generally speaking, as height increases, while rainfall becomes greater up to a certain level. The effect of ascending and descending currents of air is to diminish the range of temperature on mountain slopes and produce rather an oceanic type of climate. The larger and more uniform a climatic district, the more conspicuously do even slight elevations form climatic islands, like the Harz Mountains in the North German lowlands. A land of monotonous relief has a uniform climate, while a region rich in vertical articulations is rich also in local varieties of climate.[2] A highland of considerable elevation forms a cold district in the Temperate Zone, a temperate one in the Tropics, and a moist one in a desert or steppe. Especially in arid and torrid belts does the value of elevation for human life increase.

Altitude-zones of economic and cultural development.

The highlands of Mexico, South America and the Himalayan rim of India show stratified zones of tropical, temperate, and arctic climate, to which plant, animal and human life conform. The response is conspicuous in the varying density of population in the successive altitude zones. Central Asia shows a threefold cultural stratification of its population, each attended by the appropriate density, according to location in steppe, piedmont and mountain. The steppes have their scattered pastoral nomads; the piedmonts, with their irrigation streams, support sedentary agricultural peoples, concentrated at focal points in commercial and industrial towns; the higher reaches of the mountains are occupied by sparse groups of peasants and shepherds, wringing from upland pasture and scant field a miserable subsistence. The same stratification appears in the Atlas Mountains, intensified on the southern slope by the contrast between the closely populated belt of the piedmont and the wandering Tuareg tribes

of the Sahara on the one hand, and the sparse Berber settlements of the Atlas highlands on the other. The long slope of Mount Kilimanjaro in German East Africa descends to a coastal belt of steppe and desert, inhabited by Swahili cattle-breeders. Its piedmont, from 1000 feet above the plain up to 2400 feet, constitutes a zone of rich irrigated plantations and gardens, densely populated by peaceful folk of mingled Bantu and Hamitic blood. At 6000 feet, where forests cease, are found the kraals, cattle, sheep and goats of the semi-nomadic Masai of doubtful Hamitic stock, who raid the coastal lowlands for cattle, and purchase all their vegetable food from the tillage belt.[3] [See maps page 105 and 487.]

This stratification assumes marked variations in the different geographical zones. In Greenland life is restricted



DENSITY OF POPULATION IN ITALY.

to the piedmont coastal belt; above this rises the desert waste of the ice fields. Norway shows a tide-washed piedmont, containing a large majority of the population; above this, a steep slope sparsely inhabited; and higher still, a wild plateau summit occupied in summer only by grazing herds or migrant reindeer Lapps. Farther south the Alps show successive tiers of rural economy, again with their appropriate density of settlement. On their lower slope is found the vineyard belt, a region of highly intensive tillage, large returns upon labor, and hence of closely distributed settlement. Above that is the zone of field agriculture, less productive and less thickly peopled. Higher still is the wide zone of hay farming and stock-raising, supporting a sparse, semi-nomadic population and characterized by villages which diminish with the altitude and cease beyond 2000 meters. On Aetna, located in the tropical Mediterranean, three girdles of altitude have long been recognized,—the girdle of agriculture, the forest belt, and the desert summit. But the tourist who ascends Aetna, passes from the coast through a zone of orange and lemon groves, which are protected by temporary matting roofs against occasional frosts; then through vineyards and olive orchards which rise to 800 meters; then through a belt of summer crops rising to 1550 meters, and varied between 1400 and 1850 meters elevation by stretches of chestnut groves, whose green expanse is broken here and there by the huts of the forest guards, the highest tenants of the mountain. From these lonely dwellings down to the sea, density of population increases regularly to a maximum of over 385 to the square mile (150 to the square kilometer) near the coast.

Altitude and density belts in tropical highlands.

In the tropical highlands of Mexico, Central and South America, on the other hand, concentration of population and its concomitant cultural development begin to appear above the 2000 meter line. Here are the chief seats of population. Mexico has three recognized altitude zones, the cold, the temperate and the hot, corresponding to plateau, high slopes and coastal piedmont up to 1000 meters or 3300 feet; but the first two contain nine-tenths of the people. While the plateau has in some sections a population dense as that of France, the lowlands are sparsely peopled by wild Indians

and lumbermen. Ecuador has three-fourths of its population crowded into the plateau basins (mean elevation 8000 feet or 2500 meters) enclosed by the ranges of the Andes. Peru presents a similar distribution, with a comparatively dense population on a plateau reaching to 11,000 feet (3500 meters) or more, though its coastal belt, being healthful, dry, and fairly well supplied with irrigation streams from the Andes, is better developed than any other similar district in tropical America.[4] In Bolivia, 72 per cent. of the total population live at an altitude of 6000 to 14,000 feet, while five out of the nine most densely peopled provinces lie at elevations over 11,000 feet.[5] [See map page 9.]

From Mexico to central Chile, the heavy rains from the trade-winds clothe the slopes with dense forests, except on the lee side of the high Andean wall of Peru and Chile, and reduce much of the piedmont to malarial swamp and jungle. The discouragement to primitive tillage found in the unequal fight with a tropical forest, the dryer, more bracing and healthful climate of the high intermontane basins, their favorable conditions for agriculture by irrigation, and their naturally defined location stimulating to early cultural development, all combined to concentrate the population of prehistoric America upon the high valleys and plateaus. In historic times these centers have persisted, because the civilized or semi-civilized districts could be best exploited by the Spanish conquerors and especially because they yielded rich mineral wealth. Furthermore, the white population which has subsequently invaded tropical America has to a predominant degree reinforced the native plateau populations, while the imported negroes and mulattoes have sought the more congenial climatic conditions found in the hot lowlands.

Increasing density with motive of protection.

The relativity of geographical advantages in different historical periods warns us against assuming in all times a sparsity of population in mountains, even when the adjoining lowlands offer many attractions of climate and soil. In ages of incessant warfare, when the motive of safety has strongly influenced distribution of population, protected mountain sites have attracted settlement from the exposed plains, and thus increased the relative density of population on the steep

slopes. The corrugated plateau of Armenia and Kurdistan, located on the uneasy political frontier of Russia, Persia and Asiatic Turkey, exposed for centuries to nomadic invasion from the east, shows a sparser population on its broad intermontane plains than on the surrounding ranges. Security makes the latter the choicer places of residence. Hence they are held by the overbearing and marauding Kurds, late-comers into the land, while the older and numerically weaker Armenians cower down on the lower levels.[6] Here is an inversion of the usual order. The militantly stronger intruders, with no taste for agriculture, have seized the safer and commanding position on the hills, descending in winter with their cattle and horses to pasture and prey upon field and granary of the valley folk, whose better soil is a questionable advantage.

Motive of protection in primitive peoples.

Instances of this sort, rare in modern times, because of general economic and social progress, multiply when we go into the history of primitive or ancient peoples. The Cherokee Indians of the Southern Appalachians, surrounded by powerful neighbors in the Chickasaws, Creeks and the encroaching whites of the seaboard colonies, attacked by war parties of Shawnees and Iroquois from the north, located the bulk of their nation in the mountains. The Overhill and Middle towns, numbering together thirty-three and situated wholly in the mountains, comprised four-fifths of their fighting force in 1775, while the nine towns distributed in the flat lands of Georgia and South Carolina were small and unimportant. The Indians themselves distinguished these two divisions of their country, the one as *Otarre* or mountainous, and the others as *Ayrate* or low.[7] Similarly in ancient Gaul the three strongest tribes, the Sequani, Aedui, and Arverni, all had a large mountain nucleus. The Sequani held the Jura range with part of the Saône Valley; the Aedui held the northeast corner of the Central Plateau and some lands on the Saône, while the Arverni inhabited the western and central portion of the same highland. In a period of constant tribal migrations and war, the occupants of these high, protected locations were better able to defend themselves, and they maintained an adequate food supply by holding some of the adjoining lowland. Archaeologists generally agree that in

central and southern Italy settlement first took place in the mountains, gradually extending thence down into the plains. The superiority of the upland climate, the more abundant rainfall, the greater security against attack offered by mountain sites, and the excellent soil for agriculture resulting from the geological make-up of the Apennines, all combined to draw thither primitive and later settlement.[8] [See map page 559.] Similarly in Britain of the Bronze Age, before the peoples of Aryan speech began to swarm over the island, the primitive inhabitants, involved in constant clan or tribal warfare, placed their villages on the hills, and left in the indestructible terraces on their slopes the evidences of a vanished race and an outgrown social order.[9]

Geographic conditions affecting density of mountain population.

The advance of civilization, which brought the ancient pirate-ridden city from the inner edge of the coastal zone down to the wave-washed strand, also drew the hill town down to the plain, and the mountain population from their inaccessible strongholds to the more accessible and productive valleys. These facts contain a hint. The future investigation of archaeological remains in high mountain districts may reveal at considerable elevations the oldest and hence lowest strata of prehistoric development, strata which, in the more attractive valleys, have been obliterated or overlaid by later invasions of peoples and cultures. Ignoring this temporary attraction of population to protected mountain locations in ages of persistent warfare, we find that a comparison of many countries reveals a decreasing food supply and decreasing density of population, with every increase of height above a certain altitude, except in favored mining regions and in some tropical lands, where better climatic conditions and freedom from malaria distribute settlements far above the steaming and forest-choked lowlands. The density of population in mountains is influenced also by the composition of the soil, which affects its fertility; by the grade and exposure of the slopes, which determine the ease and success of tillage; by the proximity of the highlands to teeming centers of lowland population, and by the general economic development of the people.

In Great Britain, the sparsest population is found in the sterile highland moors of Scotland, where the county of

Sutherland has only 11 inhabitants to the square mile, Inverness only 20.[10] These figures reveal also the remoteness of a far northern location. In the southern half of the island the sparsest populations are found in the Welsh county of Radnor, with 49 to the square mile, and in English Westmoreland with 85, both of them mountain regions, but reflecting in their larger figures their close proximity to the teeming industrial centers of South Wales and Lancashire respectively. In France the most thinly settled *départements* are Basses-Alpes with 43 to the square mile and Hautes-Alpes with 50, which again owe even these figures in part to their situation on the margin of the densely populated valley of the middle Rhone. [See map page 559.] Norway, almost wholly a mountain country, averages only 18 souls to the square mile. Less than a thousand square miles of its territory are under cultivation, and these are distributed in small deltas at the heads of the fiords, in low strips here and there along its western coasts, or in the openings of its mountain valleys to the southeast. Here too is massed the larger part of its inhabitants. A barren granitic soil, unfavorable zonal location, excessive rainfall, paucity of level land, leaving the "upright farm" predominant, and remoteness from any thickly settled areas, together with the resulting enormous emigration, have combined to keep down Norway's population.

Sparsity of population in the Alps.

If we turn to Switzerland, a country poor in the resources of its land but rich in the resourcefulness of its people, we find a high average density, 218 to the square mile; but this is due to the surprising industrial development of the marginal plains, which show in the Canton of Geneva 1356 to the square mile, and in Canton Zurich 705, while the rugged upland of Graubünden (Grisons) shows only 38 to the square mile, Uri only 48, and Wallis (Valais) only 59. How limited is the food supply of the country is evident from the fact that only 2400 square miles, or fifteen per cent. of its area, can be ranked as arable land, fit for garden, orchard or grain field, while a larger proportion, or twenty-eight per cent, is made wholly useless by watercourses, glaciers, rock and detritus. One half of the entire country lies above the region where agriculture is possible. In the Cantons of Uri and Valais,

more than half the area is absolutely unproductive, scarcely less in the Grisons, and a third even in sunny Ticino.[11] The three strictly Alpine provinces of Austria, Tyrol, Salzburg and Carinthia, reproduce approximately these geographic conditions. Nearly half of their area is uninhabited, and only one-seventh consists of arable land. In consequence they support only 75 inhabitants to the square mile, while just outside the mountains, in the piedmont or Alpine foreland, this density is doubled.[12] Many tracts of the Carpathians, especially about the sources of the Theiss and Pruth and the wooded mountain borders of Transylvania, are among the most sparsely inhabited parts of Europe.[13] Japan, ridged by steep volcanic ranges, drenched by mountain-born rains, strewn with detritus from plunging torrents, can cultivate only 15.7 per cent. of its area, and is forced to leave 59 per cent. in forest reserves.[14]

Terrace agriculture.

These figures tell of the hard conditions of life characteristic of most mountain regions. Population under normal circumstances settles in the narrow valleys between the ranges and along the borders of their drainage stream. Soon, however, the food supply becomes inadequate for the growing numbers, so that artificial means have to be employed to expand the area of arable land. The soil on the mountain slopes is so thin that it yields only a scanty return to the labor of tillage. Moreover, under the operations of ploughing and harrowing, it is exposed to the danger of washing; so that after a few croppings the underlying rock of the mountain side may be laid bare, and all that was valuable in the quondam field deposited in the valley as silt or swept away to enrich the distant delta of the nearest trunk river.

To obviate this difficulty and to secure the desired increase of arable land, mountain peoples the world over have resorted to terrace agriculture. This means hand-made fields. Parallel walls, one above the other, are constructed on horizontal lines across the face of the steep slopes, and the intervals between are filled with earth, carried thither in baskets on the peasants' backs. The soil must be constantly renewed and enriched by manure in the same way, and the masonry of the retaining walls kept in repair. Whenever possible these

costly terraced fields are located by preference on southward facing slopes, where the tilt of the land makes the fields catch the rays of the sun almost at right angles and thus counteracts the chill of the higher altitude, while the mountain behind protects the growing crops from cold northern winds. Good arable land, being limited in amount, commands a high price; and especially do choice terraced fields in vine-growing countries, since they make the best vineyards. Such fields in Switzerland will bring from $300 to $2,000 an acre, and are estimated to produce annually two bottles of wine for every square foot.[15]

Geographical distribution.

Terrace agriculture, rare in new countries, in the more densely populated Old World is widely distributed in mountainous areas. In Germany, where it is nearly identical with the culture of the vine, it is found along the steep slopes overlooking the valley of the Moselle and the Rhine; also in the Vosges Mountains, the Black Forest and the Swabian Jura, to the limited altitude in which the vine will flourish in these northern regions. In the Alps it is widespread, and not confined to the culture of the vine. The traveler passing along the upper Rhone through the sunny Canton of Valais follows these terraced fields almost as far as Fiesch (altitude 3458 feet), beyond which agriculture proper becomes more and more restricted on account of the elevation, and passes rapidly into the mere hay-making of a pastoral community. Between Leuk and Sierre, not only the mountain sides, but also the steep gravel hills constituting the old terminal moraine deposited by the receding Rhone glacier across the valley floor, are terraced to their very tops.

Terrace cultivation prevails in the mountains of Italy; it is utilized not only for the vine, but for olives, maize, oats, hemp, rye and flax. On the gentler declivities of the Apennines, the terraced walls are wider apart and lower than on the steep slopes of the Ligurian Apennines and along the Riviera of the Maritime Alps, where the mountains rise abruptly from the margin of the sea.[16] Careful and laborious terrace cultivation has produced in Italy a class of superior gardeners. The Genoese are famous for their skill in this sort of culture. The men from the Apennine plateau of the

Abruzzi readily find positions in the lowlands as expert gardeners.[17]

Terrace culture of the Saracens.

The Saracens of Spain in the tenth century converted every mountain slope into a succession of green terraces. They built walls of heavy masonry, and brought water, loam, and fertilizing materials from great distances. The slopes of Granada back of Malaga and Almeria were covered with vineyards. Every foot of land susceptible of cultivation was turned to account, every drop of water from the ill-timed winter rains was conserved for the growing season. The application of intelligence and labor to tillage enabled the Hispano-Arab provinces to support a dense population.[18] These Saracen cultivators had come from the severest training school in all Eurasia. Where the arid tableland of Arabia is buttressed on the southwestern front by high coast ranges (6000 to 10,500 feet or 2000 to 3200 meters) is Yemen, rich in its soil of disintegrated trap rock, adequately watered by the dash of the southwest monsoons against its towering ridges; but practically the whole country is atilt. Consequently the mountains have been terraced from the base often up to 6000 feet. The country presents the aspect of vast agricultural amphitheaters, in which the narrow paths of ancient paving zigzag up and up through successive zones of production. Here is a wide range of fruits—oranges, lemons, figs, dates, bananas and coffee; then apricots, apples, plums, grapes, quinces, peaches, together with grains of various zonal distribution, such as millet, maize, wheat and barley. The terrace walls are from five to eight feet high, but toward the top of the mountains they often increase to fifteen feet. Though laid without mortar, they are kept in perfect repair. Reservoirs filled with water from the two rainy seasons, supply the irrigation channels.[19] In the narrow valleys of the Nejd plateau in central Arabia and on the mountain slopes of Oman are found the same irrigated gardens and terraced plantations. This laborious tillage underlay the prosperity of the ancient Sabaean monarchy of Yemen, as it explains the population of 35,000 souls who occupy the modern capital of Sanaa, located at an altitude of 7600 feet (2317 meters).[20]

In the Himalayas.

Turning eastward, we find terrace agriculture widely dis-

tributed in Himalayan lands. The steep mountain sides of the Vale of Kashmir are cultivated thus to a considerable height. The terraces are irrigated by contour channels constructed along the hillsides, which bring the water for miles from distant snow-fed streams. Their shelf-like fields are green with fruit orchards and almond groves, with vineyards and grain fields.[21] The terraced slopes about the Himalayan hill-station of Simla (elevation 7100 to 8000 feet) feed the summer population of English, who there take refuge from the deadly heat of the plains. The mountain sections of the native states of Nepal and Bhutan present the view of slopes cut into gigantic stairs, each step a field of waving rice kept saturated by irrigating streams from abundant mountain springs. Farther north, where Himalayas and Hindu Kush meet, terrace agriculture is combined with irrigation in the high Gilgit valleys, and farther still along that mere gash running down from the Pamir dome, called the Hunza Valley. Here live the once lawless robber tribes of the Hunzas and Nagaris, whose conquest cost the British a dangerous and expensive campaign in 1892, but whose extensive terraces of irrigated fields and evidences of skillful tillage gave the whole country an appearance of civilization strangely at variance with the barbarous character of its inhabitants.[22]

In Tibet and China.

North of the outer Himalayan range, near the sources of the Indus and Sutlej rivers in Ladak or Western Tibet, this same form of cultivation has been resorted to by the retarded and isolated Mongolian inhabitants. Here at an altitude of 11,000 feet or more (3354 meters), along mountain ranges of primitive rock yielding only a scant and sterile soil, terraces are laboriously constructed; their surfaces are manured with burnt remains of animal excrements, which must first serve as fuel in this timberless land before they are applied to the ground. In this stronghold of Buddhism almost every lamasery has its terraced fields yielding good crops of grain and fruit.[23] In the densely populated Sze Chuan province of western China, cultivation has climbed from the fertile basins of the Min and upper Yangtze rivers far up the surrounding mountains, where it is carried on terraces to the

foot of vertical cliffs.[24] Farther north where the mountain province of Shensi occupies the rise of land from the Chinese lowlands to the central highlands of Asia, terraces planted with wheat or other grains cover the mountain slopes.[25]

In ancient Peru.

Terrace tillage is rare in new countries of extensive plains, like the United States and Canada, where the level lands still suffice for the agricultural needs of the people; but in the confined mountain basins and valleys which made up the Inca's territory in ancient Peru, every available natural field was utilized for cultivation, and terraces brought the obstinate mountain sides under the dominion of the Andean peasant. They were constructed, a hundred or more in number, rising 1000 or 1500 feet above the floor of the highland valley, contracting in width as they rose, till the uppermost one was a narrow shelf only two feet broad. These were extended by communal labor year after year, with increase of population, just as to-day in Java and the neighboring islands, and became the property of the Inca. Streams from the higher slopes were conducted in canals and distributed from terrace to terrace, to irrigate and fertilize. These terraces therefore yielded the best crops of potatoes, maize and pulse. The cultivable area was further extended by floating gardens, consisting of rafts covered with earth, which floated on the surface of lakes.[26] They existed in ancient Mexico also,[27] and are used to-day in the lakes and streams of Tibet and Kashmir[28] and the rivers of overcrowded China.

Terrace agriculture in mountainous islands.

Mountainous islands, born of volcanic forces or the partial submergence of coastal ranges, have steep surfaces and scant lowlands. Their inhabitants command limited area at best. Driven to agriculture by their isolation, drawn to it by the favorable oceanic climate, such islands develop terrace tillage in its most pronounced form. On the precipitous pitch of Teneriffe, every particle of alluvial soil is collected to make gardens. Long lines of camels, laden with boxes of earth, may be seen coming almost daily into the town of Santa Cruz, bringing soil for the terraces.[29] This is desperate agriculture. Irrigated terraces scar the steep slopes of many Polynesian islands.[30] They are highly developed among the Malay Battaks of Sumatra, especially for rice culture.[31] In Java, Bali

and Lombok they reach a perfection hardly equalled elsewhere in the world. In Java they begin at an altitude of 1000 feet, cutting main and branch valleys into amphitheaters, and covering hundreds of square miles.[32] On the volcanic slopes of Lombok the terrace plots vary from many acres to a few square yards, according to the grade, while a complete system of irrigation uses every brook to water the terraces. Here as in Java the work began at a very early period, when it was probably introduced among the native Malays by Brahmans from India.[33] Japan, two-thirds of whose area is mountainous, has terraced its steep valley walls often up to 2000 feet or more, and utilized every patch of ground susceptible of tillage.[34]

Among mountain savages.

A mountain environment often occasions a forced development in the form of agriculture among peoples who otherwise still linger in a low stage of barbarism or savagery. The wild, head-hunting Igorots, inhabiting the Cordilleras of north central Luzon, have levelled the face of their mountains into a series of platforms, held by retaining walls from twenty to thirty feet high. On these they cultivate upland rice at an altitude of 5000 feet. The Igorot province of Bontoc contains valleys in which every available foot of land is terraced for rice, and which present artificial landscapes vividly recalling Japan. Labor is the heritage of each inhabitant. Every man, woman and child down to ten years of age shares in the work of providing food.[35] Africa shows parallel cases. The Angoss people, a savage negro tribe who occupy part of the Murchison Range in northern Nigeria, have mapped out all their sloping land into little terraces, sometimes only a foot or two wide. One of their peaks, 4135 feet high, has its plateau top covered with populous villages, owing to the protection of the site, and every inch of its slope cut into terraces planted with millet and guinea corn.[36] A more primitive form of this tillage is found in the country of the Marunga negroes, who occupy the steep western face of the rift valley filled by Lake Tanganyika. Here Cameron found the surface not regularly terraced, but retaining walls of loose stones disposed at intervals, which served to hold the soil in place, without greatly altering the natural slope. The scene recalled the ter-

raced heights of Switzerland, and the people working there looked like flies on a wall.[37] In the semi-arid country of Sudanese Darfur, where only the mountain districts are well watered and thickly populated, small terraces for grain and melons cover all the slopes.[38]

Fertilizing

Mountain agriculture is necessarily laborious. The paucity of arable land precludes the possibility of letting fields lie fallow. These, to prevent exhaustion, must be constantly and abundantly fertilized, all the more as conditions of excessive subaërial denudation found in the steep slope and usual heavy rainfall of mountains, as well as possible glacial scouring of the land in the past, have greatly attenuated the layer of soil called upon to support plant life. The Swiss or Tyrolese farmer cherishes his manure pile as at once source and badge of his wealth. After harvest it is carted or carried in baskets not only to the terraces, but also to the wide alluvial fan that grows his oats and rye, to his meadows and hay fields. Both in Mexico and Peru the soil received a dressing of poudrette. Manuring was most extensive where population was densest, as in the isolated mountain valleys opening out upon the desert coast of Peru. Every kind of organic refuse was utilized, and fish was buried with the kernels of maize as a fertilizer. The deposits of guano found on the headlands and off-shore islands were used from the remotest times. Different guano beds were assigned to the several provinces, and the breeding places of the birds were protected by law.[39] Ashes and decayed wood were employed for the same purpose, or plants were dug into the soil, while human manure was in Mexico a marketable commodity as in China.[40]

Economy of level land for houses and villages.

In all mountain regions where population has begun to press upon the meager limits of subsistence, level land and soil are at a premium. In ancient Peru space was begrudged for the dead.[41] Cities covered considerable space on the roomy intermontane plateaus; but in the narrow lateral valleys, houses and temples were built on rocks, in order to reserve every fertile spot for agriculture.[42] The traveler notices the same thing throughout the Alps. Compact villages cling to the mountain sides, leaving the alluvial hem of

the stream or level glacial terrace free for the much needed fields. Only in broad longitudinal valleys, like that of Andermatt, do the settlements complacently spread out their skirts, or on wide alluvial fans where transverse valleys debouch upon the plains. The mountaineers of the Crimea construct their houses against the precipices, excavating into their face and building up the front with stones, and thus reserve the gentler slopes for vineyards and gardens.[43] In the Kangra, Kumaon, and Garhwal districts of the British Himalayas, the large Indian villages of the plains give place to small hamlets or detached homesteads, scattered here and there wherever occasional patches of soil on a hillside or in a narrow valley offer hope of sustenance. These hamlets or dwellings are located on the sides of the mountains, because level spots which can be irrigated must be reserved for rice fields.[44] The high site is also freer from malaria.

Perpendicular villages.

In the high Himalayan province of Ladak or Western Tibet, this principle of land economy reaches a climax. All settlement is on the perpendicular. The abrupt mountain sides are honey-combed with tombs, villages and Buddhist lamaseries in the detached localities where population occurs. A pleasure walk through one of these Tibetan towns means a climb by steep flights of steps hewn out of the rock, varied by a saunter up ladders, where the sheer face of a cliff must be surmounted to reach the houses on a ledge above.[45] Pictures of these recall forcibly the cliff-dwellings of the Pueblo Indians. Even the important market city of Leh covers the lower slope of the mountain at an altitude of 11,500 feet, and from its height overlooks the cultivated fields in the sandy valley bed below, made fertile by irrigating streams from debouching cañons.[46] The Ladak villages always shun the plains. The desire to economize level arable land does not alone dictate this choice of sites, however; the motive of protection against inundation, when the snows melt and the streams swell, and also, to some degree, against hostile attack, is an additional factor. In the mountainous parts of overcrowded China, again, the food problem is the dominant motive. In the rugged highland province of Shensi, a village of several hundred people covers only a few acres, and rises

in closely packed tiers of houses against the mountain side.[47] In the wilder, half-conquered parts of Sze Chuan the villages crown the lower peaks, cling to the base of the mountains, or are perched on ledges of rock overlooking the gorges. Among the steep cliffs bordering the upper Yangtze, occupied chiefly by the timid, displaced Mantze aborigines, at an altitude of 10,000 feet, small platforms resting on beams projecting from the sheer mountain face support minute houses, whose backs burrow into the cliff behind. The small children are tied to the door post, to keep them from falling into the millet field below. The house is accessible only by bolts driven into the cliff. Above and below is the farm—small patches of tilled soil, often not larger than a bath towel, to which the cultivator lowers himself by a rope.[48] Here life hovers on the brink of death and despair.

Mountain pastures and stock-raising.

Paucity of arable land in mountain regions leads to the utilization of the untillable slopes for stock grazing. This industry is always a valuable ally to mountain agriculture on account of the manure which it yields; but in high altitudes, where the steepness or rockiness of the soil, cold and the brevity of the growing season restrict or eliminate cereal crops, it becomes the dominant occupation of the inhabitants, while agriculture takes a subordinate place, limited to the production of hay and fodder for the winter feeding of the stock. Above the line of tree growth flourish the natural summer pastures up to the border of perpetual snow; and just below lies a zone which, if cleared of its forests, supports a thick carpet of grass and herbage, though too cold to ripen grain.

The high pastures are particularly nourishing. Cows feeding here in the Alps give better milk than the "home" or valley cows, though a smaller quantity. Sheep and goats do equally well, but swine are profitable only as a by-product, to utilize the refuse of the cheese and butter industry. The area of these pastures far exceeds that of arable land in mountain regions. In Switzerland they comprise about 27 per cent. of the total productive area; hay meadows 24 per cent., but fields and gardens only 20 per cent.[49] In the Austrian province of Salzburg, pastures make up 13.3 per cent., hay meadows 34.5 per cent., and tilled fields only 11.7

per cent. of the total productive area. In the Tyrol the figures are much the same.[50] Since Norway has over 67 per cent. of its total area in bare mountains, snow fields, bogs and lakes, it is not surprising to find only 7.6 per cent. in pastures, 2.2 per cent. in meadows, and 0.7 per cent. in grain fields; but here the pastures are ten times the arable area.[51] The season of the summer feeding on the grass lands is short. In the so-called High Alps it frequently lasts only six or seven weeks, in the Grisons at most thirteen weeks,[52] and in Norway from two to three months.[53]

High mountain regions, practically restricted to this *Graswirthschaft*, soon reach their maximum of prosperity and population. The amount of hay secured for the winter feeding limits the number of cattle, and the number of the cattle, through their manure, fixes the valley hay supply. Alpine pastures cannot be enlarged, and they may be reduced by accidents of nature, such as landslides, devastating torrents, or advance of ice fields or glaciers. They cannot be improved by capital and labor, and they may deteriorate chemically by exhaustion. The constant export of butter and cheese from Alpine pastures in recent times, without substitution by any fertilizer beyond the local manure, has caused the diminution of phosphoric acid in the soil and hence impoverishment. Canton Glarus has shown a steady decline since 1630 in the number of cows which its mountain pastures can support.[54] Many other Alpine districts show the same deterioration.

Mountain herdsmen and shepherds.

The remoteness of these highland pastures from the permanent villages necessitates *Sennenwirthschaft*, or the maintenance of out-farms and shepherds on the mountains during the grazing season. This involves a semi-nomadic existence for such inhabitants as serve as herdmen. In June, as soon as the high pastures begin to grow green, cattle, sheep and goats ascend step by step in the wake of summer, as she climbs the slope, and they return in autumn to the valleys. There they feed on the stubble of hay and grain fields, till the increasing cold confines them to their low stables. The hut of the *Senner* or *Saeter*, as the herdsman is variously called in Switzerland and Norway, consists of a living room and a

smaller apartment for making butter and cheese, while against the steep slope is a rude stone shelter for the cattle and goats. The predominance of summer pastures has made cattle-raising a conspicuous part of agriculture in the Alps and in Norway. In many parts of Switzerland, cattle are called "wares" and the word cheese is used as a synonym for food, as we use bread. A Swiss peasant who has a reputation for cheese making is popular with the girls.[55] Here even Cupid turns dairy expert.

Communal ownership of mountain pastures.

Since it is scarcely practicable to divide these highland pastures, they have generally remained communal property, whether in Norway,[56] Switzerland, the Bavarian Alps, the British Himalayan districts,[57] Nepal and Bhutan,[58] or Kashmir.[59] In Europe their use is generally regulated. As a rule, a Swiss villager may keep on the *Allmende* during the summer as many head of cattle as he is able to stall-feed during the winter. Any in excess of this number must be paid for at a fixed rate to the village or commune treasury.[60] Hay-sheds and herdsmen's huts mark these districts of temporary occupation near the altitude limits of human life throughout Europe. In Asia, likewise, are to be found small villages, inhabited only in summer by herdsmen tending their flocks. Such is the hamlet of Minemerg, located at an altitude of about 8000 feet at the southern entrance to the Borzil Pass over the Western Himalayas, and Sonamerg (altitude 8650 feet or 2640 meters) just below the Zogi La Pass, both of them surrounded by rich meadows on the northern rim of the Vale of Kashmir.[61]

The utilization of mountain pastures for stock raising is almost universal. In the arid highlands of Central Asia, it is the essential supplement to the pastoral nomadism of the steppes and deserts, and to the limited sedentary agriculture found along the irrigated piedmont slopes. Here and elsewhere the animal raised varies widely—the llama and vicuna in Peru, which thrive best at 10,000 to 13,000 feet elevation, and multiply rapidly on the *ichu* or coarse grass which clothes the slopes of the higher Andes up to snow line; sheep, goats, yaks and herds of dzo, a useful hybrid between yak and cow, in the highland districts of Sze Chuan. Here the Mantze mountaineers lock their houses and leave their villages de-

serted, while they camp with their herds on the high pastures at 10,000 feet or more.[62] Only economical, ingenious Japan has failed to develop stock raising, though mountains comprise two-thirds of its area. The explanation has often been sought in Buddhism, which inhibits the use of animal food; but this religious rule probably found ready acceptance in Japan, just because the paucity of animal food made its observance easy, for the fish industry of the Empire never suffered from the inhibition. The reason is probably to be sought elsewhere. The native grass of Japan, which relentlessly crowds out all imported grazing crops, is a bamboo grass with sharp, hard, serrated edges, and is said to cut the entrails of horses and sheep.[63]

Hay-making in high mountains.

While the high pastures are ample for the summer feeding, the chief problem of mountain stock-farmers is to secure feed for the winter support of their animals. This taxes their industry and ingenuity to the utmost. While the herdsmen are away tending their charges on the heights, the rest of the population are kept busy at home, getting fodder for the six or seven months of stall-feeding. This includes the cultivation of hardy crops like oats, rye and barley, which will mature at a great altitude, hay-making and collecting twigs and even leaves for the less fastidious goats. In Switzerland as in Norway the art of mowing has reached its highest pitch. Grass only three inches high is cut thrice yearly. The Norwegian peasant gathers a small hay harvest from the roofs of his house and barns, and from the edges of the highways. In Switzerland not a spear of grass escapes. In places inaccessible to cattle and goats, the peasant gathers hay by the handful with crampons on his feet, generally from the ledges of cliffs. He stacks it in one spot, and brings it down to the valley by sledge in winter. He is the *Wildheuer* or wild hay gatherer. His life is so dangerous, that the law permits only one *Wildheuer* to a family.[64] In high Alpine cantons this office is the privilege of the poor.[65] The traveler in Norway frequently sees huge bundles of hay sliding down to the valley on wires stretched from some high point on the precipitous fiord wall. This represents the harvest from isolated spots or from the field of the summer shepherd. In the vicinity

of every *saeter* hut, a plot of ground is fenced in, enriched with the manure gathered during the summer, and utilized to grow fine nourishing grass, which is mown and transported down to the valley farm.[66] Here economy of vegetative resources reaches its climax.

Methods of curing hay in mountains.

In mountain regions of heavy rainfall, thick dew and numerous cloudy days, it becomes a problem to get the hay dried and stored before a drenching shower comes. In many parts of Switzerland, therefore, the peasant on a clear morning cuts a limited amount of grass. This, with the help of his wife and children, he diligently turns and tosses at short intervals all day long, thus subjecting it to a rapid curing process by the action of the wind and the sun, whose rays are doubly effective in the rarefied air of the heights. In the evening the hay is made up into bundles and carried on his back to the barn. In other parts of Switzerland the green hay is hung on horizontal poles arranged against the sunny side of the chalet and under its projecting roof, thus exposed to the heat and protected from the rain till cured. In Norway the same purpose is achieved by setting up in the fields racks supporting long horizontal bars, over which the newly cut grass is hung. There it is exposed to the gentle fanning of the wind and penetrated by the warmth of the sun, in the short intervals when the sky is not overcast; and during a shower it sheds the water immediately, so that a minimum of harm is done. In the mountains of Germany, the hay is stacked on cone-shaped racks made of poles, with lateral projections which support the grass; thus the air can circulate freely inside the hollow cone, which is lifted well above the ground. Elsewhere sharpened stakes provided with cross bars are simply driven into the ground, and on these the hay is draped till cured.

Mountain hay-making leaves nothing to chance; too much depends upon the crop. In fact, at high altitudes it becomes the only crop. Cereal culture drops off with every increase of elevation. Norway has few fields above 1600 feet;[67] even barley fails to ripen above 2600 feet. In the mountains of Würtenberg we find pure *Graswirthschaft* at 3000 feet elevation, with only a small garden patch near the dwell-

ing.[68] It is interesting to take a tramp up one of the longitudinal or lateral valleys of the Alps, and observe the economic basis of life gradually change from agriculture to hay-making, till in some high-laid Alpine cirque, like Bad Leuk or Barmaz at the head of the Val d'Ilez, one sees only meadows and an occasional potato patch, which impresses the lowlander as a last despairing effort in the struggle for existence.

Winter industries of mountain peoples.

Where climate and soil do so little for the support of life, man must do much. Work must in some way be made to compensate for an ungenerous Nature. The closely housed existence necessitated by the long severe winters of high altitudes stimulates industries in the home. The winter feeding of the stock involves little labor, so the abundant leisure would otherwise be wasted. Hence it is no accident that we find almost everywhere native mountain industries in a high state of development, and often characterized by an artistic beauty which seems to be the one flower of this barren environment. They are naturally based upon the local raw materials of the mountains, such as wood, metals, clays, and especially the wool of sheep and goats. Moreover, their products are articles of small bulk and large value, adapted to costly mountain transportation. Those of Kashmir are typical—carved wood, artistic metal work in silver and copper, puttoo cloth, carpets and the famous Kashmir shawls.[69] The stark life of Tibet shows in its industries an unexpected richness and beauty. The men spin and weave wool into puttoo cloth of all grades; some of it is extraordinarily fine in texture and color, and is exported by caravan in considerable quantity to northern China and Mongolia. Pastil sticks, made of aromatic wood and impregnated with musk and gold-dust, are a conspicuous commodity in the trade with Peking. Tibet is rich in metals, especially silver and gold. Even the nomad shepherds of the tablelands know how to purify gold-dust over a fire of argols; hence it is not surprising that the settlements in the irrigated mountain valleys should develop real artists in metallurgy.[70] The province of Dérgé, which excels in metal work, produces swords, guns, teapots, bells and seals of extremely artistic design and perfect finish.[71] The jewelry of Tibet suggests Byzantine work. It includes ear-rings and charm boxes of

gold and carved turquoise, and is marked by the same delicate finish. But whether the Tibetan is working in wood, gold, brass, or wool, he uses native designs of real merit, and shows the expert craftsman's hand.[72] His activities recall the metal work of the Caucasus and the famous rugs of Daghestan.

Turning to Europe we find watch and clock making in the Black Forest and the Jura, wood-carving in the Swiss and Norwegian mountains, bobbin lace in the Erz range and in Alpine Appenzell, and the far more beautiful Italian product of the rugged Abruzzi and the Frioulian Alps. The Slovaks of highland Hungary are expert in wire-drawing,[73] and the peasant of the central Apennines makes from the gut of his goats the finest violin strings in the world, the so-called Roman strings.[74] The low Thuringian and Franconian Forests, which harbor denser populations, have by a minute subdivision of labor turned their local resources to the making of dolls, which they supply to the markets of the world. Here too the manufacture of glass articles, porcelains, majolica and terra-cotta flourishes.[75] Most of these mountain industries merely supplement the scant agricultural resources; they represent the efforts of industrious but hard pressed people to eke out their meager subsistence.

Overpopulation and emigration.

The application of steam to industry has converted mountain regions of abundant mineral wealth into centers of production for the markets of the world. But this is the history of only the last century, and of only favored mountain regions. The utilization of waterpower for electricity in factories is transforming the piedmont belts of the Alps and Apennines; but life in the interior of these ranges remains unaltered by the denser population at their base, except for the increased demand for the butter, milk and cheese of the highland pastures. For the world at large, therefore, the obvious and persistent fact of mountain economy is a scanty food supply secured by even the most intelligent and untiring labor, and a fixed tendency to overpopulation. The simplest remedy for this evil is emigration, a fact which Malthus observed.[76] Hence emigration is an almost universal phenomenon in highland regions. Sometimes it is only seasonal. It takes place in the fall after the field work is over, and is due to the paucity of

industries possible in the mountains during the winter. It seems to be a recurrence of that nomadic note in the *motif* of mountain life—that migration in summer upward to the borders of the snow, in winter downward to the sun-warmed plains. In autumn the Swiss descend from the Jura and Alps in great numbers to cities, seeking positions as servants or pastry-cooks. The Auvergnats leave their home by the thousand in the fall, when snow covers the mountains, to work in the cities as hewers of stone and drawers of water, then return in summer to resume their tasks in field and pasture, bringing back sums of money which noticeably enrich the home districts.[77]

Forms of temporary emigration.

This seasonal emigration often assumes the form of peddling, in order to dispose of small home-made wares. From the Basilicata and Modena Apennines the young men follow the pedler's trade, but the Basilicata village of Viggiano furnishes Italy with many wandering musicians.[78] The Kabyles of the Atlas Mountains go out in parties of two or three in the fall, and hawk every kind of goods, bringing back from their journey quantities of wool for home weaving.[79] The emigration may last for several years, but finally the love of home generally calls the mountaineer back to his rugged hills. The Galicians of the Cantabrian Mountains of northern Spain leave their poor country for a time for the richer provinces of Portugal and Spain, where they become porters, water-carriers and scavengers, and are known as boorish, but industrious and honest. The women from the neighboring mountain province of Asturias are the professional wet-nurses of Spain. They are to be seen in every aristocratic household of Madrid, but return to the mountains with their savings when their period of service ends.[80] In mountainous Basutoland, the Kaffir Switzerland of South Africa, arable land and pastures are utilized as completely as local methods of husbandry permit; and yet the native Kaffirs go in large numbers—28,000 out of a total population of 220,000 in 1895—to work in the mines of Kimberley and the Witwatersrand. They also return in time with their savings.[81] Similarly the Battaks of the rugged mountain-rimmed plateau of western Sumatra emigrate in increasing numbers to the lowlands, and hire them-

selves out for a term of years on the Dutch plantations.[82]

Another interesting and once rather widespread phase of this temporary emigration appears in the mercenary troops formerly drawn from mountain regions. After the Burgundian wars of the fifteenth century, the Swiss became the mercenaries of Europe, and in 1503 were first employed as papal life-guards. They served the kings of France from Louis XI. till the tragedy of the Tuileries in 1792; and in that country and elsewhere they made the name "Switzer" a synonym for guard or attendant,[83] till in 1848 the mercenary system was abolished. The pressure of population at home and the military spirit of the Scotch Highlanders once led the young Gaels to seek their fortunes in military service abroad, as in the army of Gustavus Adolphus of Sweden.[84] Gurkhas from Himalayan Nepal, an independent state, are employed in considerable numbers in the Indian army to-day, and constitute one of the most reliable divisions of the native troops. In January, 1901, there were 12,797 Gurkhas drawing pay from the Indian government as soldiers, besides 6000 more employed as military police, porters, and in other capacities.[85] Similarly ancient Arcadia, the mountain core of Peloponnesus, was a constant hive of mercenaries.

Permanent emigration.

Often, however, permanent emigration is the result, robbing the mountain population of its most enterprising element. Piedmontese, Bergamese, and Frioulians from the Italian Alps leave their country in large numbers. Many of them find work in Marseilles and other towns of southern France, infusing an Italian strain into the population there and making serious competition for the local French. A proverb says there is no country in the world without sparrows and Bergamese.[86] Geneva, once the citadel of Calvinism, is to-day a Catholic town, owing to the influx of Catholic laborers from Alpine Savoy. The overflow of the redundant population of this mountain province has given the Swiss canton a character diametrically opposed to its traditions.[87] The Chinese provinces of Chili and Manchuria have been largely populated by immigrants from the barren mountain peninsula of Shantung; Manchuria has thereby been converted from an alien into a native district.[88]

Emigration on so large a scale exercises far-reaching economic and historical influences. Norse colonization contributed interesting chapters to the history of Europe in the ninth and tenth centuries. Norwegians who have flocked to America have made a deep impress upon our Northwestern States. Switzerland in 1902 and 1903 gave us 9500 of its subjects, a valuable contribution. Scotchmen of Highland birth are scattered over the whole world, carrying with them everywhere their sturdy qualities of character. Even the stay-at-home French lose emigrants from their mountain districts. The people of the Basses-Alps go to Mexico, and the Basques from the French Pyrenees seek Argentine.[89] The honesty, industry, and frugality of these mountain emigrants make them desirable elements in any colonial population, and insure their success when they seek their fortunes in the uncrowded western world.

Preventive checks to increase of population.

The alternative to overpopulation and its remedy emigration is found in preventive checks to increase. These sometimes take the form of restricted or late marriages, as Malthus found to be the case in Norway and Switzerland in 1799,[90] before the introduction of steam or electric motive power had stimulated the industries of these countries or facilitated emigration thence. The same end is achieved by the widespread religious celibacy which sometimes characterizes mountain communities. In the barren Auvergne Plateau of France, the number of younger sons who become priests is extraordinary. Many daughters become nuns. Celibacy, seconded by extensive emigration, clears the field for the eldest son and the system of primogeniture which the poverty of this rugged highland has established as a fixed institution in the Auvergne.[91] A careful statistical investigation of the geographical origins of the Catholic priesthood in Europe might throw interesting light on the influences of environment. The harsh conditions of mountain life make the monastery a line of least resistance, while geographical isolation nourishes the religious nature and benumbs the intellectual activities.

It is in the corrugated highland of Tibet, chilled to barrenness by an elevation of 12,000 feet or more (4000 meters), sterile and treeless from aridity, carved by cañon-cutting

streams into deep gorges offering a modicum of arable soil for irrigation, that monasticism has developed into an effective system to keep down population. Buddhism, with its convents and lamaseries, naturally recommended itself to a country where asceticism was obviously expedient. The world shows nowhere else so large a celibate class. In Tibet, monks are estimated at 175,000 to 500,000 in a total population of three millions. Archibald Little estimates their number at one-third of the total male population.[92] Derge, which is the most productive district both agriculturally and industrially of eastern Tibet and is also most densely inhabited, counts at least 10,000 lamas in a total population of about 42,000.[93] Not less than one-sixth of the inhabitants of Ladak are in religious houses as monks and nuns.[94] Families in Tibet are small, yet each devotes one or more children to convent or monastic life.[95] In western Tibet, especially about Taklakot in the Himalayan border, one boy in every family is invariably devoted to the priesthood, and one or more daughters must become nuns. But the nun generally resides with her family or lives in some monastery—with unspeakable results.[96]

The Tibetans seem to be enthusiastic Malthusians, with all the courage of their convictions. Religious celibacy among them is only an adjunct to another equally effective social device for restricting population. This is the institution of polyandry, which crops out in widely distributed mountain regions of limited resources, just as it appears not infrequently in primitive island societies. Its sporadic occurrence in extensive lowlands, as among the Warraus of Guiana and certain tribes of the Orinoco, is extremely rare, as also is its occasional appearance among pastoral steppe-dwellers like the Hottentots and Damaras.[97] It is often associated with polygamy where wealth exists, and is never the exclusive form of marriage, yet its frequency among mountain peoples is striking. Strabo describes fraternal polyandry as it existed in mountainous Yemen. There among a Semitic people, as to-day in Mongolian Tibet and among the aboriginal Todas of the Nilgiri Hills in peninsular India, the staff of one husband left at the door of the house excluded the others.[98] In modern times the institution is found throughout Tibet,

Polyandry.

and in the Himalayan and sub-Himalayan districts adjoining it, as in Ladak, Kunawar, Kumaon, Garhwal, Spiti, Sirmur, among the Miris, Daphlas, Abors and Bhutias occupying the southern slope of the Himalayans eastward from Sikkim, and the Murmese tribes of the Khasiâ Hills just to the south. The same practice occurs among the Coorgs of the Western Ghats, among the Nairs at the coastal piedmont of this range, among the Todas of the mountain stronghold known as the Nilgiri Hills (peaks 8000 feet or 2630 meters), and it crops out sporadically among certain mountain Bantu tribes of South Africa.[99]

Female infanticide.

There seems little doubt that polyandry, as Herbert Spencer maintains, has been adopted as an obvious and easy check upon increase of population in rugged countries.[100] It is generally coupled with other preventive checks. In the Nilgiri Hills, as we found also to be the case on many Polynesian islands, it is closely associated with female infanticide.[101] The Todas in 1867 showed a proportion of two men to one woman, but later, with the decline of infanticide under British rule, a proportion of 100 men to 75 women, and a resulting modification of the institution of polyandry.[102] It may well be that the paucity of women suggested this form of marriage, whose expediency as an ally to infanticide in checking population later became apparent. The Todas are a very primitive folk of herdsmen, living on the produce of their buffaloes, averse to agriculture, though not inhibited from it by the nature of their country, therefore prone to seek any escape from that uncongenial employment,[103] and relying on the protected isolation of their habitat to compensate for the weakness inherent in the small number of the tribe.

Throughout Tibet and Ladak polyandry works hand in hand with the lamaseries in limiting population. The conspicuous fact in Tibetan polyandry is its restriction to the agricultural portion of the population. The pastoral nomads of the country, depending on their yaks, sheep and goats, wandering at will over a very wide, if desolate territory, practice monogamy and polygamy.[104] The sedentary population, on the other hand, is restricted to tillable lands so small that each farm produces only enough for one family. Subdivision under

a divided inheritance would be disastrous to these dwarf estates, especially owing to possible complications growing out of irrigating rights.[105] Polyandry leaves the estate and the family undivided, and by permitting only one wife to several fraternal husbands restricts the number of children. It does this also in another way by diminishing the fertility of the mothers; for all travelers comment upon the paucity of children in polyandrous families.

Westermarck lays stress upon the fact that polyandry prevails chiefly in sterile countries. He regards it less as a conscious device to check increase of population than a result of the disproportion of males to females in polyandrous communities. The preponderance of male births he attributes to the excessive endogamy bordering on inbreeding which tends to prevail in all isolated mountain valleys; and also, as a possibility, to the undernourished condition of the parents caused by scanty food supplies, which Düsing found to be productive of a high percentage of male births in proportion to female.[106] The motive of restricting population seems entitled to more weight than Westermarck concedes to it; for he slurs over the fact that in Tibet polyandry gives rise to a large number of superfluous women who fill the nunneries,[107] while in the Nilgiri Hills redundant females were eliminated by infanticide. The fact seems to be that in the institution of polyandry we have a social and psychological effect of environment, reinforced by a physiological effect.

Effects of polyandry and polygamy.

A comparison of social conditions in the adjoining provinces of Baltistan and Ladak, which together comprise the Himalayan valley of the Indus, reveals the character of polyandry as a response to geographic environment. Both provinces are inhabited by a Mongolian stock, but the Ladaki living on the uppermost stretch of the basin near Tibet are Buddhists and polyandrists, while the Baltis farther down the valley are Mussulmen and polygamists. The Baltis, with their plurality of wives and numerous children, are wretchedly poor and live in squalor on the verge of starvation; but as the elevation of their valley ranges only from 4000 to 8500 feet, they are inured to heat, and therefore emigrate in large numbers to the neighboring Mohammedan province of the Punjab,

where they work as coolies and navvies. The Ladakis, on the other hand, living 9000 to 13,000 feet above the sea, die of bilious fever when they reach the lowlands. Cut off from emigration, they curtail population by means of polyandry and lamaseries. Consequently they show signs of prosperity, are well fed, well clothed and comfortably housed.[108] Baltistan's social condition illustrates in a striking way the power of an idea like an alien creed, assimilated as the result of close vicinal location, to counteract for a time the influences of local geographic conditions.

Marauding tendencies in mountaineers.

The less civilized mountain peoples, whose tastes or low economic status unfit them for emigration, solve the problem of a deficient food supply by raiding the fields and stores of their richer neighbors. Predatory expeditions fill the history of primitive mountain peoples, and of the ancient occupants of highland regions which are now devoted to honest industry. The ancient Alpine tribes were one and all, from the Mediterranean to the Danube, "poor and addicted to robbery," as Strabo says. He analyzes their condition with nice discrimination. "The greater part [of the Alps], especially the summits of the mountains inhabited by robbers, are barren and unfruitful, both on account of the frost and the ruggedness of the land. Because of the want of food and other necessaries, the mountaineers have sometimes been obliged to spare the inhabitants of the plains, that they might have some people to supply them."[109] The freebooters usually descended into the lowlands of Italy, Gaul and Helvetia, but the pass peoples lay in wait for their prey on the mountain roads. Strabo described the same marauding habits arising from the same cause among the mountaineers of northern Spain,[110] the Balkan range,[111] and the highlands encircling the Mesopotamian plains.[112]

Hunger is usually the spur. The tribesmen who inhabit the Hunza gorge were notorious robbers till their recent conquest by the British. Despite the most careful terrace tillage, their country was much overpopulated. The supply of grain was so inadequate, that during the summer the people subsisted wholly on fruit, reserving the grain for winter use. Therefore, when early summer opened the passes of the Kara-

koram and Himalayan ranges, and caravans began to move over the trade route between Kashmir and Yarkand, when the Kirghis nomads from the plains sought the pastures of the Pamir, the Hunza tribesmen found raiding caravans and herds, and pillaging the Gilgit Valley of Baltistan the easiest means of supplementing their slender resources. Hardy mountaineers as they were, and born fighters, they always conducted their forays successfully, and returned to the shelter of their fastnesses, laden with plunder and driving their captive flocks before them. The perpetual menace of these Hunza raids caused large districts in the Gilgit Valley to be abandoned by their inhabitants, and cultivated land to lapse into wilderness,[113] while the Chilas to the south pillaged the Astor Valley of Baltistan, carrying away crops and cattle, enslaving women and children.[114]

Cattle-lifting.

Marauding propensities are marked among all retarded mountain peoples of modern times. The cattle-lifting clans of the Scotch Highlands, who preyed upon the Lowlands, have their counterpart in the Pathans of the Suleiman and Baluch mountain border who, till curbed by the British power in India, systematically pillaged the plains of the Sind.[115] The forest Bhils of the Vindhyan and Satpura ranges are scarcely yet married to agriculture; so when in time of drought their crops fail and the game abandons the hill forests to seek water in the lowland jungles, the Bhils cheerfully revert to their ancestral habit of cattle-lifting.[116]

The Caucasus was long a breeding place for robber tribes who made their forays into the pastures and fields of southern Russia. Robbery was part of the education of every Circassian prince, while one group of the Abassines conferred their chieftainship upon the most successful robber or the man of largest family.[117] The Kurdish hillmen of the Armenian ranges descend with their herds of horses in winter to the warmer plains, where they exhaust the pastures and subject the Armenian villages to a regular system of blackmail.[118] The wide grassy plains about Koukou Nor Lake, near the Chinese border of Tibet, attract numerous Mongol nomads with their herds; but these rich pastures are exposed to the depredation of Si Fan brigand tribes, who have their haunts in the deep,

impenetrable gorges of the neighboring mountains, and carefully guard all the approaches to the same. They are Buddhists, but worship a special Divinity of Brigandage, to whom their lamas offer prayers for the success of every foray.[119] Hence, among mountain as among desert peoples, robbery tends to become a virtue; environment dictates their ethical code.

Historical results of mountain raiding.

These depredations reflect to a great degree the complementary relation of highlands and lowlands. The plains possess what the mountains lack. This is a fundamental fact of economic geography, and inevitably leads to historical results. The marauding expeditions of mountain peoples first acquire historical importance, either when the raids after long continuance end in the conquest of the lowlands, and thus augment the resources and population of the highland state; or, as is often the case, the raiders call down upon themselves the vengeance of the plainsmen, are subdued, and embodied in the lowland state. The conquest of ancient Assyria and the destruction of Nineveh by the mountain Medes seems to have been a process of this kind. Long before their descent upon Mesopotamia, they were known as the "dangerous Medes," were constantly threatening the Assyrian frontiers and occupying isolated tracts.[120] The predatory incursions of the Samnites of the Apennines into the fertile fields of Campania eventuated in the conquest of ancient Capua and other cities, and greatly strengthened the Samnite Confederacy. But this encroachment of the mountain tribes upon the plains aroused the cupidity and alarm of the Romans, who in turn bent their energies toward the final subjugation of the Samnites.[121] Himalayan Nepal, after the unification of its petty Rajah states by the Gurkha conquest between 1768 and 1790, began encroachments and ravages upon the Indian Terai or fertile alluvial lowland at the foot of the mountains; and finally by 1858 had acquired title to a considerable strip of it, which by its rice fields and forests greatly strengthened the geographic and economic base of the highland state.[122] The Malay Hovas, inhabiting the central plateau of Madagascar, braced to effort by its temperate climate and not over-generous soil, have almost everywhere subdued the better fed but sluggish

lowlanders of the coast.[123] There can be little doubt that the beneficent effects of an invigorating mountain climate, especially in tropical and subtropical latitudes, have helped the hardy, active hill people to make easy conquest of the enervated plainsmen.

Conquest of mountain regions.

It is more often the case, however, that the scant resources, small number, and divided political condition of the mountain tribes make such conquest impossible. Their depredations provoke reprisals from the stronger states of the plain, who bring the mountain region under subjection, merely to police their frontier. Strabo makes it clear that the Romans, having secured certain passes over the Alps, neglected the conquest of the ranges, till the increase of Roman colonies along the piedmont rim excited the cupidity of the mountaineers. Muscovite dominion was extended over the Caucasus, both in order to check the persistent raids of its tribes into the Russian plains, and to secure control of its passes. The state of Kashmir, guided by a purely local policy, for years tried to conquer the robber tribes on its northwestern frontier, merely to protect its own border provinces. Then the British authorities of the Indian Empire began the same process, but from a radically different motive. They saw the Gilgit and Hunza valleys, like the Chitral to the west, as highways through a mountain transit land, whose opposite approaches were held by the Russians.[124]

Such conquests, whatever be their motive, profit the vanquished in the end more than the victor. They result in the systematic and intelligent development of the mountain resources, and the maintenance of ampler social and economic relations between highland and lowland through the construction of roads, which must always represent the reach of the governing authority. The conquest of mountain peoples means always expensive and protracted campaigns. The invader has always two enemies to fight, Nature and the armed foe. There is a saying in India that "In Gilgit a small army is annihilated and a large army starves to death." Hunger is king in high altitudes, and comes always to the defense of mountain independence. Moreover, the inaccessibility of such districts, the difficulty of maintaining lines of communication,

ignorance of by-paths and trails which forever offer strategic opportunities to the natives or escape at a crisis, all serve to protract the war. The independent spirit of the mountaineer, his endurance of hardships, his mastery of mountain tactics, and his obstinate resistance after repeated defeat, give always a touch of heroism to highland warfare. Consequently, history abounds in examples of unconquered mountain peoples, or of long sustained resistance, like that which for sixty years under the heroic leadership of Kadi Mulah and Shamyl used up the treasure and troops of Russia in the impregnable defiles of the Caucasus. In the end, however, the highland tribes succumb to numbers and the road-making engineer.

Political dismemberment of mountain peoples.

Political dismemberment, lack of cohesion due to the presence of physical barriers impeding intercourse, is the inherent weakness of mountain peoples. Political consolidation is never voluntary. It is always forced upon them from without, either by foreign conquest or by the constant menace of such conquest, which compels the mountain clans to combine for common defense of their freedom. The combination thus made is reluctant, loose, easily broken, generally short-lived. It becomes close and permanent only under a constant pressure from without, and then assumes a form allowing to the constituent parts the greatest possible measure of independence. The Swiss canton and commune are the result of a segregating environment; the Swiss Republic is the result of threatened encroachments by the surrounding states. It owed its first genuine federal constitution to Napoleon.

A report on the situation in the Caucasus, addressed to Czar Nicholas in 1829, contains an epitome of the history of mountain peoples. It runs as follows: "The Circassians bar out Russia from the south, and may at their pleasure open or close the passage to the nations of Asia. At present their intestine dissensions, fostered by Russia, hinder them from uniting under one leader; but it must not be forgotten that, according to traditions religiously preserved among them, the sway of their ancestors extended as far as to the Black Sea. * * * The imagination is appalled at the consequence which their union under one leader might have for Russia, which has no other bulwark against their ravages

than a military line, too extensive to be very strong."[125] Here we have the whole story—a mountain people pillaging the lowlands, exercising a dangerous and embarrassing control over the passes, and thereby calling down upon themselves conquest from without; weakened by a contracting territory within the highlands and a shrinking area of plunder without, doomed to eventual defeat by the yet more ominous weakness of political dismemberment.

Individualism and independence.

Mountain tribes are always like a pack of hounds on the leash, each straining in a different direction. Wall-like barriers, holding them apart for centuries, make them almost incapable of concerted action, and restive under any authority but their own. Clan and tribal societies, feudal and republican rule, always on a small scale, characterize mountain sociology. All these are attended by an exaggerated individualism and its inevitable concomitant, the blood feud. Mountain policy tends to diminish the power of the central authority to the vanishing point, giving individualism full scope. Social and economic retardation, caused by extreme isolation and encouraged by protected location, tend to keep the social body small and loosely organized. Every aspect of environment makes against social integration.

The broken relief of ancient Greece produced the small city state; but in the rugged mountains of Arcadia the principle of physical and political subdivision went farther. Here, for four centuries after the first Olympiad, the population, poorest and rudest of all Greece, was split up into petty hill villages, each independent of the other.[126] The need of resisting Spartan aggression led for the first time, in 371 B. C., to the formation of a *commune Arcadum*, a coalescence of all the fractional groups constituting the Arcadian folk;[127] but even this union, effected only by the masterly manipulation of the Theban Epaminondas, proved short-lived and incomplete. What was true of the Arcadian villages was true of the city states of Greece. The geography of the land instilled into them the principle of political aloofness, except when menaced by foreign conquest. Coöperation is efficient only when it springs from a habit of mind. Greek union against the Persians was very imperfect; and against the Roman, the

feeble leagues were wholly ineffective. The influence of this dismembering environment still persists. As ancient Greece was a complex of city states, modern Greece is a complex of separate districts, each of which holds chief place in the minds of its citizens, and unconsciously but steadily operates against the growth of a national spirit in the modern sense.[128]

Types of mountain states.

A mountain environment encourages political disunion in several forms. Sometimes it favors the survival of a turbulent feudal nobility, based upon clan organization, as among the medieval Scotch, who were not less rebellious toward their own kings than toward the English conquerors.[129] Feudal rule seems congenial to the mountaineer, whose conservative nature, born of isolation, clings to hereditary chiefs and a long established order. Feudal communities and dwarf republics exist side by side in the northern Caucasus,[130] attended by that primitive assertion of individual right, the blood feud.[131] Often the two forms of government are combined, but the feudal element is generally only a dwindling survival from a remote past. The little Republic of Andorra, which for a thousand years has preserved its existence in the protection of a high Pyrenean valley, is a self-governing community, organized strictly along the lines of a Tyrolese or Swiss commune; but the two *viguiers* or agents, who in some matters outrank the president, are official appointments tracing back to feudal days, when Andorra was a seigneurie of the Comté of Urgel.[132] Tyrol offers a striking parallel to this. In its local affairs it has in effect a republican form of government, enjoying as high degree of autonomy as any Swiss canton; but the great Brenner route, which could confer both power and wealth on its possessor, made the Tyrol an object of conquest to the feudal nobles of the early Middle Ages. Their hereditary dominion is now vested in the archdukes of Austria, to whom the Tyrolese have shown unfailing fidelity, but from whom they have exacted complete recognition of their rights.[133]

Tyrol's neighbor Switzerland illustrates the pure form of commune, canton and republic, which is the logical result of a rugged mountain relief. Here commune and canton are the real units of government. In the federal power at Bern the

Swiss peasant takes little interest, often not even knowing the name of the national president. In the highest ranges a canton coincides with a mountain-rimmed valley—Valais with the basin of the upper Rhone, Glarus with the upper Linth, Uri with the Reuss, Graubünden with the upper Rhine, to which is joined by many pass routes the sparsely peopled Engadine, Ticino with the drainage basin of upper Lake Maggiore, Unterwalden with the southern drainage valleys of Lake Lucerne. Where the mountains are lower, or where passes connect valleys of high levels, cantonal boundaries may overstep geographical barriers. A commune generally consists of the villages strung along a narrow lateral valley, isolated and sufficient unto itself politically. A close parallel to the Alpine commune is found among the Kabyles of the Atlas Mountains. Their political structure is based upon the *Jemaa* or commune, a small sovereign republic whose independence is fiercely defended. It enjoys complete local autonomy, is governed by an assembly of all the adult male inhabitants, and grants this body the usual functions except the administration of justice, which, characteristically, is replaced by blood feuds as the inalienable right of the individual. Romans, Arabs, Turks and French have in turn exercised over these mountain Berbers only nominal control, except when their internal dissensions made them vulnerable.[134]

Significance of their small size.

The mountains, by the segregating power of their ridges and ranges, first produce these little independent communities, and then, throwing around them strong protecting arms, enfold them in an embrace which long provides security to them in their weakness. These minute mountain states, therefore, tend to reflect in their size the isolation of their environment, and indirectly the weakness of the surrounding nations. The original Swiss *Eidgenossensschaft* of the four forest cantons, embedded in the high Alps, braced against a mountain wall, held its own against the feeble feudal states of Austria and Germany. The rugged relief of Graubünden and the spirit of freedom cradled there enabled its peasants in the Middle Ages to overthrow the feudal lords, and to establish a federal republic. This typical mountain state was a league composed of three other leagues. Each

component league consisted of a group of districts, having the power of sovereign states, and consisting in turn of a group of communes, which were quite independent in local affairs. This triune league formed in time an alliance with the Swiss Confederation, but did not become a member of it till the Vienna adjustment of 1815. Similar is the story of the mountain shepherds of Appenzell, who formed a little peasant republic, despite their bishop overlord of St. Gall; and who later during the Reformation, on the ground of religious differences, divided into two yet smaller states.[135] The relation between size and inaccessibility is most strikingly illustrated in the high Himalayan ranges west of Kashmir and north of the Punjab. Here is the Shinaka district, which includes the Chilas, Darel, Tanger and other valleys branching off from the Indus, and which is inhabited by Dards of Indo-European stock. Each Shinaka valley is a small cantonal republic, and each village of each republic is a commune managing its own affairs by an assembly. One settlement of only twelve houses enjoys complete autonomy. Besides the village assemblies there is a state parliament handling questions of general policy, to which each village sends representatives. One dissentient vote can defeat a measure. The majority cannot control the minority; for if one village of a state disagrees with the others, it is free to carry out its own policy, even in the matter of foreign alliances.[136] Here is home rule run to seed.

Slight power of mountain chiefs.

Small size is sometimes coupled with monarchical rule, degenerating occasionally into despotism among aggressive robber tribes. The inaccessible Hunza Valley is occupied on opposite sides of its deep gorge by two rival states, the Hunzas and the Nagaris, whose combined population amounts to scarcely 25,000 souls. Hostile to each other, they unite only to resist an invading force. While the Hunza Thum is a tyrant, the Nagari ruler has little voice in the government. The Tibeto-Burman hill folk of the eastern Himalayas are divided into clans, and concede a mild authority to a chief who rules a group of clan villages, but only rarely is able to secure power over a larger district. The Khasia Hills of Assam are broken up into twenty-three petty

states, each under its own Rajah or chief, who has, however, little authority beyond the administration of justice.[137]

Everywhere in mountain regions appears this repugnance to centralized authority. Protection by environment obviates the necessity of protection through combination. The spirit of clan exclusiveness, the absence of a common national sentiment, characterize equally the tribesmen of mountainous Albania, of Persian Luristan,[138] and highland Kurdistan. Along the rugged upheaved area which forms the western boundary of India from the Khaibar Pass to the sea, British officials have had to negotiate with the native Pathan and Baluch "jirgahs," assemblies of the chief men of the countless clans into which the tribes are divided, as the only visible form of authority tolerated.[139] Combination must be voluntary and of a type to exact a modicum of submission. These requirements are best answered by the confederation, which may gradually assume a stable and elaborate form among an advanced people like the Swiss; or it may constitute a loose yet effective union, as in the famous Samnite confederacy of the central Apennines; or a temporary league like that of the ancient Arcadians, or the group of confederated sheiks of Bellad el Kobail, the "Country of the Highlanders" in mountainous Yemen, who in 1790 established a republican form of union for defense against their more powerful neighbors.[140]

Mountain isolation and differentiation.

The power of mountains to protect makes them asylums of refuge for displaced peoples. This fact explains the confused ethnology which often characterizes these isolated regions, especially when they lie near or across natural highways of human migration. As a tide of humanity sweeps around or across the mountains, a branch stream turns into a side valley, where it is caught and held. There it remains unaltered, crystallizing in its seclusion, subjected for ages to few modifying influences from without. Its people keep their own language and customs, little affected by a totally different race stock similarly placed in a neighboring alcove of the mountains. Lack of communication engenders an endless multiplication of dialects, as we find them in the Alps, the Caucasus, in Kafirstan of the Hindu Kush and in Nepal.

Diversity of speech, itself a product of isolation, reacts upon that political and social aloofness of mountain folk, to emphasize and fix it.

Survival of primitive races in mountains.

From this principle it follows that the same highland region shows strong differentiation and marked social individuality from one district to another, and from one valley to the next, despite a prevailing similarity of local geographic conditions. In fact, the very similarity of those conditions, strong in their power to isolate, present the conditions for inevitable variation. A mountain region gets its population from diverse sources, or, which is quite as important, at different times from the same source. For instance, Nepal received contingents of Rajput conquerors, dislodged from the Punjab, in the seventh century, the eleventh, and finally the dominant Gurkhas at the end of the eighteenth. To-day these represent different degrees of amalgamation with the local Tibetan stock of Nepal. They are distinguished from each other by a diversity of languages, and a multiplicity of dialects, while the whole piedmont of the country shows a yet different blend with the Aryan Hindus of the Ganges valley, who have seeped into the Terai and been drawn up, as if by capillary attraction, into the hill valleys of the outer range. The Vindhyan Range and its associated highlands, long before the dawn of Indian history, caught and held in their careful embrace some of the fragile aboriginal tribes like the Kolarian Ho, Santals and Korkus. Centuries later the Dravidian Bhils and Gonds sought refuge here before the advancing Indo-Aryans, and found asylums in the secluded valleys.[141] Finally those same northern plains whence the Dravidians had come, after the Mohammedan conquest of central India in the sixteenth century, sent flying to the refuge of the hills a large contingent of Hindus of mingled Dravidian and Aryan stocks, but stamped with the culture of the Ganges basin. These occupied the richer valleys and the more accessible plateaus of the highlands, driving the primitive Gonds and Bhils back into the remoter recesses of the mountains.[142] Dravidians and aboriginal Kolarians survive in their purity in the wilder and more inaccessible regions, but in the lower valleys their upper classes show signs of mixtures with

the Rajput invaders, while the lower classes betray little Aryan blood.[143]

Diversity of peoples and dialects.

Afghanistan, of disordered relief, set as a transit region between the plains of Mesopotamia, the Oxus and the Indus, has a confused ethnology in keeping with the tangle of dissected plateaus and mountain systems which constitute its surface. Here we find three distinct branches of the Indo-European race, divided up into various peoples of diverse tongues and subdivided further into countless tribes; and two branches of Mongol-Tartars scattered, as if out of a pepper box, from the Helmund to the Oxus, tossed in among diverse peoples of Iranic and Galcha origin in hopeless confusion. The various Afghan tribes, separated from each other by natural barriers and intervening alien stocks, though similar in physical type, speech, religion and culture, have no sense of unity, no common political aims, while the appalling list of tribes constituting the population of the country[144] offers little hope of Afghanistan ever developing national cohesion. Kafiristan alone, which lies in the Hindu Kush range for the most part at an altitude of 12,000 feet or more, harbors in its recesses many remnants of primitive peoples, speaking various languages and dialects, strangers alike to any native affinity or political union. It is a mere agglomeration of ethnic fragments, in which the people of one village are often unable to converse with those of the next.[145] Relief has fashioned the ethnology of the Caucasus in the same way. No other equally small area in the world contains such a variety of peoples and tongues, differing from one another in race, language, and customs so fundamentally as the Caucasus. From the heterogeneous survivals of extremely old ethnic stocks, lodged in the high valleys, to the intrusive Russians of the lower piedmont, the Caucasus might be called an ethnographical sample card.[146]

The rugged configuration of the Alps, from the Rhone to the Danube, has preserved the broad-headed Alpine race, which was perhaps the primitive stock of Central Europe. The great river valleys leading into this massive highland, like the Rhine, Aar, Inn and Adige, show the intrusion of a long-headed race from both north and south; but lofty and

remote valleys off the main routes of travel, like the Hither Rhine about Dissentis, the little Stanzerthal of the upper Inn, and the Passierthal of the upper Adige above Meran, show the race preserved in its purity by the isolating environment.[147] Here each segregated lateral valley becomes an area of marked linguistic and social differentiation; only where it opens into the wider longitudinal valleys are its peculiarities of speech and custom diluted by the intrusive current of another race. Switzerland has received three different streams of language, and broken them up into numerous rivulets of dialect. On its small area of 16,125 square miles (41,346 square kilometers) thirty-five dialects of German are spoken, sixteen of French, eight of Italian and five of Romansch, a primitive and degenerate Latin tongue, surviving from the ancestral days of Roman occupation.[148] The yet smaller territory of the Tyrol has all these languages except French, whose place is taken by various forms of Slavonic speech which have entered by the western tributaries of the Danube.[149]

Constriction of mountain areas of ethnic survivals.

Rarely is a polyglot mountain population able to work out its own political salvation, as the Swiss have done. More often political union must be forced upon them from without. Oftener still, when the highlanders are primitive survivals, ill-matched against the superior invaders from the plain, they are doomed to a process of constriction of territory and deterioration of numbers, which proceeds slowly or rapidly according to the inaccessibility of their environment and the energy of the intruders. Deliberate, unenterprising nations, like the Chinese, Turks and Indo-Aryans long tolerate the presence of alien mountain tribes, who remain like enemies brought to bay in their isolated fortresses. The conquerors throw around them at their leisure a cordon of settlement, which, slowly ascending the piedmont, draws closer and closer about the mountaineers. The situation of many mountain tribes reminds one of a besieged stronghold. Russian wars against the Caucasus have rightly been described as protracted sieges. The heroic history of Switzerland in relation to its neighbors has been that of a skillfully conducted defense, both military and diplomatic. The territory of China is dotted over with detached groups of aborigines, who have survived wherever a

friendly mountain has offered them an asylum. Variously known as Lolos, Mantze or Miaotse, they have preserved everywhere a semi-independence in pathless mountains, whither Chinese troops do not dare to follow them;[150] but the more numerous and patient Chinese agriculturalists are in many sections slowly encroaching upon their territories, driving them farther and farther into the recesses of their highlands. The same process goes on in Formosa, where the Chinese have gradually forced the native Malays into mountain fastnesses among the peaks which rise to 14,000 feet (4500 meters). There, split up by internecine feuds into numberless clans and tribes, ignorant of one another's languages, raiding each other's territories and the coastal plains tilled by Chinese colonists, they await their doom, while the piedmont zone between has already given birth to a typical border race of halfbreeds, more Chinese than Malay.[151]

Isolation and retardation of mountain regions.

"To have and to hold" is the motto of the mountains. Like remote islands, they are often museums of social antiquities. Antiquated races and languages abound. The mountaineers of the Southern Appalachians speak to-day an eighteenth century English. Their literature is the ballad poetry of old England and Scotland, handed down from parent to child. Clan feuds settle questions of justice, as in the Caucasus and the Apennines. Religion is orthodox to the last degree, sectarianism is rigid, and Joshua's power over the sun remains in some lonely valleys undiscounted.[152] These are all the marks of isolation and retardation which appear in similar environments elsewhere. Especially religious dogmas tend to show in mountains a tenacity of life impossible in the plains. The Kafirs, inhabiting the high Hindu Kush Mountains of Badakshan, and apparently of Pelasgic, early Greek, or Persian origin, have a religion blended of paganism, Zoroastrianism and Brahmanism.[153] One intruding faith has been unable to dislodge the previous incumbent, so the three have combined. The great historical destiny of the small, barren, isolated Judean plateau was to hold aloof the chaste religion of the desert-bred Jews from the sensuous agricultural gods of the Canaanites; to conserve and fix it; if need be, to narrow it to a provincial tribal faith, to stamp it with ex-

clusiveness, conservatism, and formalism, as its adherents with bigotry,[154] for this is always the effect of geographical seclusion. But when all these limitations of Judaism are acknowledged, the fact remains that that segregated mountain environment performed the inestimable service for the world of keeping pure and undefiled the first and last great gift of the desert, a monotheistic faith.

Buddhism, once the official religion of Korea but disestablished three centuries ago, has taken refuge in the Diamond Mountains, far from the main roads; there a dull, moribund form of the faith dozes on in the monasteries and monastic shrines of these secluded highlands.[155] Driven out of India, Buddhism survives only in the Himalayan border of the country among the local Tibeto-Burman peoples, and in Ceylon, whose mountain city of Kandy is its stronghold. The persecuted Waldenses, a heretic sect who fled in 1178 from the cities of France to the Alps, took refuge in the remote valleys of the Pellice, Chisone, and Augrogne some thirty miles southwest of Turin. There, protected equally against attack and modification, the Waldenses have maintained the old tenets and organization of their religion.[156]

Conservatism of mountain peoples.

The mountain-dweller is essentially conservative. There is little in his environment to stimulate him to change, and little reaches him from the outside world. The "spirit of the times" is generally the spirit of a past time, when it has penetrated to his remote upland. He is strangely indifferent to what goes on in the great outstretched plains below him. What filters in to him from the outside has little suggestion for him, because it does not accord with the established order which he has always known. Hence innovation is distasteful to him. This repugnance to change reaches its clearest expression, perhaps, in the development and preservation of national costumes. *Tracht*, which is crystallized style in dress, appears nowhere so widespread and so abundantly differentiated as in mountain districts. In Switzerland, every canton has its distinctive costume which has come down from a remote past. The peasants of Norway, of the German and Austrian Alps, of the Basque settlements in the Pyrenees, of mountain-bound Alsace and Bohemia, give local color to the

landscape by the picturesqueness of their national dress.

With this conservatism of the mountaineer is generally coupled suspicion toward strangers, extreme sensitiveness to criticism, superstition, strong religious feeling, and an intense love of home and family. The bitter struggle for existence makes him industrious, frugal, provident; and, when the marauding stage has been outgrown, he is peculiarly honest as a rule. Statistics of crime in mountain regions show few crimes against property though many against person. When the mountain-bred man comes down into the plains, he brings with him therefore certain qualities which make him a formidable competitor in the struggle for existence,—the strong muscles, unjaded nerves, iron purpose, and indifference to luxury bred in him by the hard conditions of his native environment.

Mental and moral qualities.

NOTES TO CHAPTER XVI

1. Heinrich von Treitschke, *Politik*, Vol. I, p. 218. Leipzig, 1897.
2. For full discussion, see H. R. Mill, International Geography, pp. 79-81. New York, 1902.
3. J. Thomson, Through Masai Land, pp. 78-82, 113-115, 122, 140-141, 163-167, 406-407. London, 1885.
4. J. Russell Smith, Plateaus in Tropical America, in Report of Eighth International Geographical Congress, pp. 829-831. Washington, 1905.
5. Isaiah Bowman, The Distribution of Population in Bolivia, *Bulletin American Geographical Society*, pp. 74-78, Vol. VII. 1909.
6. D. G. Hogarth, The Nearer East, p. 157. London, 1902.
7. Roosevelt, Winning of the West, Vol. I, pp. 52-56. New York, 1895. C. C. Royce, The Cherokee Nation of Indians, Fifth Annual Report of Bureau of Ethnology, pp. 140-143. Washington, 1887.
8. W. Z. Ripley, The Races of Europe, pp. 253-254. New York, 1899.
9. G. L. Gomme, The Village Community, pp. 72, 75-95. New York, 1890.
10. H. R. Mill, International Geography, pp. 148, 154, 155. New York, 1902.
11. J. Partsch, Central Europe, pp. 204, 207. London, 1903.
12. H. R. Mill, International Geography, p. 304. New York, 1902.
13. J. Partsch, Central Europe, p. 221. London, 1903.
14. Alfred Stead, Japan by the Japanese, p. 425. London, 1904. Henry Dyer, Dai Nippon, p. 241. New York, 1904.
15. Boyd Winchester, The Swiss Republic, pp. 307-308. Phila., 1891.
16. Wilhelm Deecke, Italy, pp. 190, 358-361. London, 1904.
17. Elisée Reclus, Europe, Vol. I, p. 284. New York, 1882.
18. S. P. Scott, History of the Moorish Empire in Spain, Vol. III, pp. 610-613. Philadelphia, 1904.

19. M. Niebuhr, Travels Through Arabia, Vol. I, pp. 290-291, 300. Edinburgh, 1792. S. M. Zwemer, Arabia the Cradle of Islam, pp. 57, 68, 69, 415. New York, 1900.

20. D. G. Hogarth, The Nearer East, pp. 75, 140, 267. London, 1902.

21. E. F. Knight, Where Three Empires Meet, p. 10. London, 1897.

22. *Ibid.*, pp. 312, 460, 463, 468, 475.

23. *Ibid.*, 118, 119, 160, 200.

24. Isabella Bird Bishop, The Yangtze Valley and Beyond, Vol. I, pp. 176, 183, 294; Vol. II, p. 107. New York and London, 1900.

25. F. H. Nichols, Through Hidden Shensi, pp. 51, 54. New York, 1902.

26. E. J. Payne, History of the New World, Vol. I, pp. 375-378. Oxford, 1892.

27. Ratzel, History of Mankind, Vol. II, p. 162. London, 1896-1898.

28. E. F. Knight, Where Three Empires Meet, pp. 86-87. London, 1897.

29. A. B. Ellis, West African Islands, p. 248. London, 1885.

30. Ratzel, History of Mankind, Vol. I, p. 254. London, 1896-1898.

31. *Ibid.*, Vol. I, pp. 426-428.

32. A. R. Wallace, The Malay Archipelago, p. 122. New York, 1869.

33. *Ibid.*, 174.

34. W. E. Griffis, The Mikado's Empire, Vol. I, p. 90. New York, 1903.

35. Census of the Philippine Islands, Vol. I, pp. 458, 541, 543; and Vol. IV, pp. 88-89. Washington, 1905. Gazetteer of the Philippine Islands, photographs, pp. 352-353. Washington, 1902.

36. Boyd Alexander, From the Niger to the Nile, Vol. I, pp. 96-97. London, 1907.

37. V. L. Cameron, Across Africa, p. 221. London, 1885.

38. Count Gleichen, The Egyptian Sudan, Vol. I, p. 190. London, 1905.

39. Prescott, Conquest of Peru, Vol. I, pp. 134-136. New York, 1848.

40. Ratzel, History of Mankind, Vol. II, p. 176. London, 1896-1898.

41. *Ibid.*, Vol. II, p. 176.

42. E. J. Payne, History of the New World, Vol. I, p. 377. Oxford, 1892.

43. Pallas, Travels Through the Southern Provinces of Russia, Vol. II, p. 346. London, 1812.

44. B. H. Baden-Powell, The Indian Village Community, pp. 57, 58, 61. London, 1896.

45. E. F. Knight, Where Three Empires Meet, pp. 148, 151, 154, 163, 203, 238 *et passim.* London, 1897.

46. *Ibid.*, 70-73.

47. F. H. Nichols, Through Hidden Shensi, p. 52. New York, 1902.

48. Isabella Bird Bishop, The Yangtze Valley and Beyond, Vol. I, pp. 163, 176; Vol. II, pp. 126, 147. New York and London, 1900.

49. Boyd Winchester, The Swiss Republic, p. 307. Philadelphia, 1891.

50. Wilhelm Roscher, *National-oekonomik des Ackerbaues*, p. 656, Note 1. Stuttgart, 1888.

51. Norway, Official Publication, p. 307. Christiania, 1900.

52. Roscher, *National-oekonomik des Ackerbaues*, p. 656, Note 4. Stuttgart, 1888.

53. Norway, Official Publication, p. 325. Christiania, 1900.

54. Roscher, *National-oekonomik des Ackerbaues*, p. 657, Note 7. Stuttgart, 1888.

55. *Ibid.*, p. 655, Note 1.

56. Norway, Official Publication, p. 310. Christiania, 1900.

57. B. H. Baden-Powell, The Indian Village Community, pp. 58-59. London, 1896.

58. McCullough, Geographical Dictionary, Article Nepal. J. C. White, Journeys in Bhutan, *Geographical Journal*, Vol. 35, p. 33. London, 1910.

59. E. F. Knight, Where Three Empires Meet, p. 10. London, 1897.

60. Boyd Winchester, The Swiss Republic, p. 310. Philadelphia, 1891. A. von Miaskowski, *Die schweizerische Allmend*, pp. 88-89, 175, 178, 179, 198. *Staats- und socialwissenschaftliche Forschungen*, Vol. II, No. 4, Leipzig, 1879.

61. E. F. Knight, Where Three Empires Meet, pp. 98, 248, 329. London, 1897.

62. Isabella Bird Bishop, The Yangtze Valley and Beyond, Vol. II, pp. 181, 187, 224. London and New York, 1900.

63. Carter Harrison, A Race with the Sun, p. 63. New York, 1889.

64. Boyd Winchester, The Swiss Republic, pp. 325-327. Phila. 1891.

65. A von Miaskowski, *Die schweizerische Allmend*, pp. 164-166. *Staats- und socialwissenschaftliche Forschungen*, Vol. II, No. 4. Leipzig, 1879.

66. Norway, Official Publication, p. 325. Christiania, 1900.

67. *Ibid.*, p. 59.

68. Roscher, *National-oekonomik des Ackerbaues*, p. 655, Note 1. Stuttgart, 1888.

69. E. F. Knight, Where Three Empires Meet, pp. 40, 41, 77. London, 1897.

70. M. Hue, Travels in Tartary, Thibet and China in 1846, Vol. II, pp. 151-156. Chicago, 1898.

71. W. W. Rockhill, The Land of the Lamas, p. 228. New York, 1891.

72. Perceval Landon, The Opening of Tibet, pp. 110, 111, 205-206. New York, 1905.

73. J. Partsch, Central Europe, pp. 197, 248. London, 1903.

74. Wilhelm Deecke, Italy, p. 220. London, 1904.

75. J. Partsch, Central Europe, pp. 269-270. London, 1903.

76. Malthus, Essay on Population, Book II, chap. V.

77. Cliffe Leslie, Auvergne, *Fortnightly Review*, p. 741, Vol. XVI. 1874.

78. Wilhelm Deecke, Italy, pp. 243, 409. London, 1904.

79. Ratzel, History of Mankind, Vol. III, p. 252. London, 1896-1898.

80. L. Higgin, Spanish Life in Town and Country, pp. 27, 29, 292-293. New York, 1902.

81. James Bryce, Impressions of South Africa, p. 350. New York, 1897.

82. Von Bremer, Land of the Battaks, *Geographical Journal*, Vol. VII, pp. 76-80. London, 1896.

83. B. Winchester, The Swiss Republic, pp. 229-232. Phila., 1891.

84. James Logan, The Scottish Gael or Celtic Manners, p. 78. Hartford, 1849.

85. Indian Census for 1901, Vol. I, Part I, p. 93, by Risley and Gait. Calcutta, 1903.

86. Elisée Reclus, Europe, Vol. I, p. 219. New York, 1882.

87. Heinrich von Treitschke, *Politik*, Vol. I, p. 228. Leipzig, 1897.
88. Archibald Little, The Far East, pp. 47, 167. Oxford, 1905.
89. H. R. Mill, International Geography, p. 243. New York, 1902.
90. Malthus, Essay on Population, Book II, chap. I.
91. Cliffe Leslie, Auvergne, *Fortnightly Review*, Vol. XVI, pp. 741-742. 1874.
92. Oscar P. Crosby, Tibet and Turkestan, pp. 153, 156. London and New York, 1905. A. Little, The Far East, p. 217. Oxford, 1905.
93. W. W. Rockhill, The Land of the Lamas, p. 227. New York, 1891.
94. E. F. Knight, Where Three Empires Meet, p. 218. London, 1897.
95. W. W. Rockhill, The Land of the Lamas, p. 212. New York, 1891.
96. C. A. Sherring, Western Tibet and the British Borderland, p. 188. London, 1906.
97. Westermarck, History of Human Marriage, pp. 451, 452. London, 1891.
98. Strabo, Book XVI, chap. IV, 25.
99. For authorities, see Westermarck, History of Human Marriage, pp. 452-455. London, 1891. McLennan, Primitive Marriage, pp. 178-179, 184-189. Edinburgh, 1865. C. A. Sherring, Western Tibet and the British Borderland, pp. 14, 15, 88-89, 177, 305. London, 1906.
100. Spencer, Principles of Sociology, Vol. I, pp. 646-649. New York, 1887.
101. W. H. R. Rivers, The Todas, incorporated in W. I. Thomas' Source Book for Social Origins, pp. 485-486. Chicago, 1909.
102. Westermarck, History of Human Marriage, p. 463. London, 1891.
103. Sir Thomas Holdich, India, pp. 216, 217. London, 1905.
104. W. W. Rockhill, The Land of the Lamas, pp. 211-212. New York, 1891.
105. Oscar P. Crosby, Tibet and Turkestan, pp. 148-151. New York and London, 1905.
106. Westermarck, History of Human Marriage, pp. 470-483, 547-548. London, 1891.
107. Perceval Landon, The Opening of Tibet, p. 193. New York, 1905.
108. E. F. Knight, Where Three Empires Meet, pp. 137-141. London, 1897.
109. Strabo, Book IV, chap. VI, 6, 7, 8, 10.
110. *Ibid.*, Book III, chap. III, 5, 7, 8.
111. *Ibid.*, Book VII, chap. VI, 1.
112. *Ibid.*, Book XI, chap. XII, 4; chap. XIII, 3, 6.
113. E. F. Knight, Where Three Empires Meet, pp. 346-349, 460-464. London, 1897.
114. *Ibid.*, 280-282.
115. Sir Thomas Holdich, India, p. 33. London, 1905.
116. *Ibid.*, 219-221.
117. Pallas, Travels Through the Southern Provinces of Russia, Vol. I, pp. 386-390, 406-407. London, 1812.
118. D. G. Hogarth, The Nearer East, p. 246-249. London, 1902.
119. M. Huc, Travels in Tartary, Thibet, and China in 1846, Vol. II, pp. 90-93, 100-101, 129-132. Chicago, 1898.
120. Hans Helmolt, History of the World, Vol. III, pp. 131, 133-135. New York and London, 1902-1906.
121. Strabo, Book V, chap. IV, II.

122. Article Nepal, Encyclopædia Britannica.
123. C. Keller, Madagascar, pp. 24-26, 72, 85. London, 1901.
124. E. F. Knight, Where Three Empires Meet, pp. 280, 288-289. London, 1897.
125. Walter K. Kelly, History of Russia, Vol. II, p. 392. London, 1881.
126. Grote, History of Greece, Vol. II, p. 441. New York, 1859.
127. *Ibid.*, Vol. X, pp. 208, 215, 224-225.
128. D. G. Hogarth, The Nearer East, p. 235. London, 1902.
129. Henry Buckle, History of Civilization in England, Vol. II, pp. 125, 136-137. New York, 1871.
130. W. K. Kelly, History of Russia, Vol. II, p. 394. London, 1881.
131. Pallas, Travels Through the Southern Provinces of Russia, Vol. I, pp. 391, 404-405. London, 1812.
132. H. Spencer, A Visit to Andorra, *Fortnightly Review*, Vol. 67, pp. 53-60. 1897.
133. Article Tyrol, Encyclopædia Britannica.
134. Ratzel, History of Mankind, Vol. III, pp. 253-254. London, 1896-1898.
135. H. J. Mackinder, The Rhine, pp. 27-31, 47-49, 56, 57. London, 1908.
136. E. F. Knight, Where Three Empires Meet, pp. 305-306. London, 1897.
137. B. H. Baden-Powell, The Indian Village Community, pp. 136, 143-146. London, 1896.
138. D. G. Hogarth, The Nearer East, pp. 229-231, 248, 252-253. London, 1902.
139. Sir Thomas Holdich, India, pp. 243-244. London, 1905.
140. Niebuhr, Travels Through Arabia, Vol. II, pp. 50-51. Edinburgh, 1792.
141. B. H. Baden-Powell, The Indian Village Community, pp. 40, 47, 110, 121, 151-154, 159. London, 1896.
142. Captain J. Forsythe, The Highlands of Central India, pp. 10-15, 23 24, 123-125. London, 1889.
143. *Ibid.*, 6, 7, 10-12, 141-147.
144. Angus Hamilton, Afghanistan, pp. 262-268. New York, 1906.
145. Sir Thomas Holdich, India, pp. 98-99. London, 1905.
146. Merzbacher, *Aus den Hochregionen des Kaukasus*, Vol. I, pp. 55-56, 156. Leipzig, 1901.
147. W. Z. Ripley, The Races of Europe, pp. 281-283, 289-290, map p. 285. New York, 1899.
148. *Ibid.*, 282.
149. Article Tyrol, Encyclopædia Britannica.
150. Archibald Little, The Far East, 131-132. Oxford, 1905. Isabella Bird Bishop, The Yangtze Valley and Beyond, Vol. II, 132-133, 146-147, 166, 174, 207-210. New York and London, 1900. S. Wells Williams, The Middle Kingdom, Vol. I, p. 43, New York, 1904. J. Naken, *Die Provinz Kwangtung und ihre Bevölkerung*, *Petermanns Geographische Mittheilungen*, Vol. 24, p. 421. 1878.
151. Archibald Little, The Far East, pp. 307-308. Oxford, 1905.
152. E. C. Semple, The Anglo-Saxons of the Kentucky Mountains, *Geographical Journal*, Vol. XVII, pp. 588-623. London, 1901.

153. Sir Thomas Holdich, The Origin of the Kafir of the Hindu Kush, *Geographical Journal,* Vol. VII, p. 42. London, 1896.

154. George Adam Smith, Historical Geography of the Holy Land, pp. 259-261. New York, 1897.

155. Isabella Bird Bishop, Korea and Her Neighbors, pp. 21, 134-135, 140, 142. New York, 1897.

156. Article Waldenses, Encyclopædia Britannica.

CHAPTER XVII

THE INFLUENCE OF CLIMATE

Importance of climatic influences.

CLIMATE enters fundamentally into all consideration of geographic influences, either by implication or explicitly. It is a factor in most physiological and psychological effects of environment. It underlies the whole significance of zonal location, continental and insular. Large territorial areas are favorable to improved variation in men and animals partly because they comprise a diversity of natural conditions, of which a wide range of climates forms one. This is also one advantage of a varied relief, especially in the Tropics, where all the zones may be compressed into a small area on the slopes of high mountains like the Andes and Kilimanjaro. Climate fixes the boundaries of human habitation in Arctic latitudes and high altitudes by drawing the dead-line to all organic life. It dominates life in steppes and torrid deserts as in sub-polar wastes. It encourages intimacy with the sea in tropical Malays and Polynesians, and like a slave-driver, scourges on the fur-clad Eskimo to reap the harvest of the deep. It is always present in that intricate balance of geographic factors which produces a given historical result, throwing its weight now into one side of the scales, now into the other. It underlies the production, distribution and exchange of commodities derived from the vegetable and animal kingdoms, influences methods of agriculture, and the efficiency of human labor in various industries.[1] Hence it is a potent factor in the beginning and in the evolution of civilization, so far as this goes hand in hand with economic development.

Climate in the interplay of geographic factors.

The foregoing chapters have therefore been indirectly concerned with climate to no small degree, but they have endeavored to treat the subject analytically, showing climate as working with or against or in some combination with other geographic factors. This course was necessary, because climatic influences are so conspicuous and so important that by

the older geographers like Montesquieu[2] and others, they have been erected into a blanket theory, and made to explain a wide range of social and historical phenomena which were properly the effect of other geographic factors.

Direct and indirect effects of climate.

For a clear understanding of climatic influences, it is necessary to adhere to the chief characteristics of the atmosphere, such as heat and cold, moisture and aridity, and to consider the effect of zonal location, winds and relief in the production and distribution of these; also to distinguish between direct and indirect results of climate, temporary and permanent, physiological and psychological ones, because the confusion of these various effects breeds far-fetched conclusions. The direct modification of man by climate is partly an *a priori* assumption, because the incontestable evidences of such modification are not very numerous, however strong the probability may be. The effect of climate upon plant and animal life is obvious, and immediately raises the assumption that man has been similarly influenced. But there is this difference: in contrast to the helpless dependence upon environment of stationary plants and animals, whose range of movement is strictly determined by conditions of food and temperature, the great mobility of man, combined with his inventiveness, enables him to flee or seek almost any climatic condition, and to emancipate himself from the full tyranny of climatic control by substituting an indirect economic effect for a direct physical effect.

The direct results of climate are various, though some are open to the charge of imperfect proof. Even the relation of nigrescence to tropical heat, which seems to be established by the geographical distribution of negroid races in the Old World, fails to find support from the facts of pigmentation among the American Indians from Alaska to Tierra del Fuego. Nevertheless climate undoubtedly modifies many physiological processes in individuals and peoples,[3] affects their immunity from certain classes of diseases and their susceptibility to others, influences their temperament, their energy, their capacity for sustained or for merely intermittent effort, and therefore helps determine their efficiency as economic and political agents.

While producing these direct effects, climate also influences man indirectly by controlling the wide range of his life conditions dependent upon the plant and animal life about him. It dictates what crops he may raise, and has it in its power to affect radically the size of his harvest. It decides which flocks and herds are best suited to his environment, and therefore directs his pastoral activities, whether he keeps reindeer, camels, llamas, horses or horned cattle. By interdicting both agriculture and stock-raising, as in Greenland whose ice cap leaves little surface free even for reindeer moss, it condemns the inhabitants forever to the uncertain subsistence of the hunter. Where it encourages the growth of large forests which harbor abundant game and yield abundant fruits, as in the hot, moist equatorial belt and on rainy mountain slopes, it prolongs the hunter stage of development, retards the advance to agriculture. Climate thus helps to influence the rate and the limit of cultural development. It determines in part the local supply of raw material with which man has to work, and hence the majority of his secondary activities, except where these are expended on mineral resources. It decides the character of his food, clothing, and dwelling, and ultimately of his civilization.

Effect of climate upon relief.

The very ground under man's feet, moreover, feels the molding hand of climate. In one region a former age of excessive cold has glaciated the surface and scoured off the fertile loam down to the underlying rock, or left the land coated with barren glacial drift or more productive clays. In another, the cold still persists and caps the land with ice and snow, or, as in the tundra, underlays it with a stratum of frozen earth, which keeps the surface wet and chilled even in the height of summer. In yet other regions, abundant moisture combined with heat covers the ground with a pad of fertile humus, while some hundred miles away drying trade winds parch and crack the steppe vegetation, convert most of its organic substance into gases, and leave only a small residue to enrich the soil. Rain itself modifies the relief of the land, and therefore often decides in a slow, cosmic way what shall be the ultimate destination of its precious store of water. A heavy precipitation on the windward side of a

mountain range, by increasing the mechanical force of its drainage streams, makes them bite their way back into the heart of the system and decapitate the rivers on the leeward side, thus diminishing the volume of water left to irrigate the rainless slope. Thus the hydra-headed Amazon has been spreading and multiplying its sources among the Andean valleys, to the detriment of agriculture on the dry Pacific slope; thus the torrents of the Western Ghats, gorged by the monsoon rains from the Indian Ocean, are slowly nipping off the streams of the ill-watered Deccan. [See map page 484.] All these direct and indirect effects of climate may combine to produce ultimate politico-geographical results which manifest themselves in the expansion, power and permanence of states.

Climate limits the habitable area.

Climatic conditions limit the habitable area of the earth. This is their most important anthropo-geographic effect. At either pole lurks an invincible foe, with whom expanding humanity must always reckon, and who brooks little encroachment upon his territory. His weapon is the restriction of organic life, without which man cannot exist. The geographical boundaries of organic life, however, are wider than those of human life. The consequence of this climatic control, therefore, is not only a narrowed distribution of the human race, but a concentration which intensifies the struggle for existence, forces the utilization of all the available area, and thereby in every locality stimulates adaptation to environment.

Adaptability of man to climatic extremes.

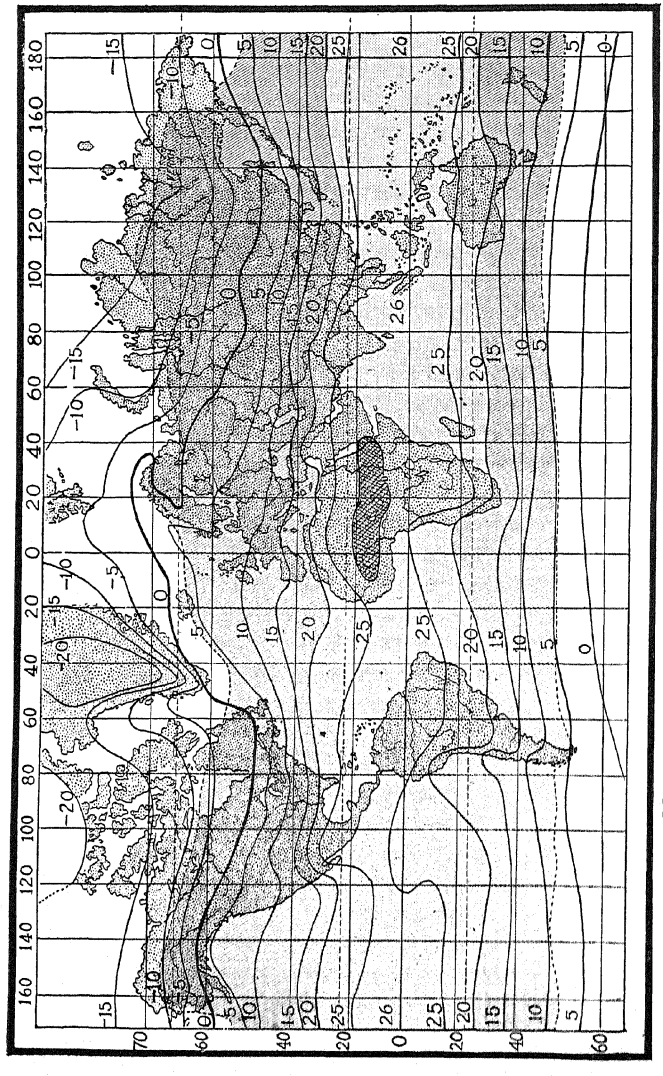
Man ranks among the most adaptable organic beings on the earth. No climate is absolutely intolerable to him. Only the absence of food supply or of all marketable commodities will exclude him from the most inhospitable region. His dwellings are found from sea level up to an altitude of 5000 meters or more, where the air pressure is little over one half that on the coast.[4] Seventeen per cent. of the towns and cities of Bolivia are located at an elevation above 13,000 feet (4000 meters), while Aullagas occupies a site 15,700 feet or nearly 5000 meters above the sea.[5] Mineral wealth explains these high Bolivian settlements, just as it draws the Mexican sulphur miners to temporary residence in the crater of Popocatepetl at an altitude of 17,787 feet (5420 meters), from their

permanent dwellings a thousand meters below.[6] The laborers employed in the construction of the Oroya railroad in Peru became rapidly accustomed to work in the rarefied air at an elevation of 4000 to 4800 meters. The trade routes over the Andes and Himalayan ranges often cross passes at similar altitudes; the Karakorum road mounts to 18,548 feet (5,650 meters). Yet these great elevations do not prevent men going their way and doing the day's work, although the unacclimated tenderfoot is liable to attacks of mountain sickness in consequence of the rarefied air.[7]

Man makes himself at home in any zone. The cold pole of the earth, so far as recorded temperatures show, is the town of Verkhoyansk in northeastern Siberia, whose mean January temperature is 54 F. below zero (—48 Centigrade). Massawa, one of the hottest spots in the furnace of Africa is the capital of the Italian colony of Eritrea. However, extremes both of heat and cold reduce the density of population, the scale and efficiency of economic enterprises. The greatest events of universal history and especially the greatest historical developments belong to the North Temperate Zone. The decisive voyages of discovery emanated thence, though the needs of trade and the steady winds of low latitudes combined to carry them to the Tropics. The coldest lands of the earth are either uninhabited, like Spitzenbergen, or sparsely populated, like northern Siberia. The hottest regions, also, are far from being so densely populated as many temperate countries.[8] [See maps pages 8, 9, and 612.] The fact that they are for the most part dependencies or former colonial possessions of European powers indicates their retarded economic and political development. The contrast between the Mongol Tunguse, who lead the life of hunters and herders in Arctic Siberia, and the related Manchus, who conquered and rule the temperate lands of China, shows how climates help differentiate various branches of the same ethnic stock; and this contrast only parallels that between the Eskimo and Aztec offshoots of the American Indians, the Norwegian and Italian divisions of the white race.

Temperature as modified by oceans and winds.

The zonal location of a country indicates roughly the degree of heat which it receives from the sun. It would do this



MEAN ANNUAL ISOTHERMS AND HEAT BELTS [*Centigrade*]
0°C.=32°F. 20°C.=68°F. 30°C.=86°F.

accurately if variations of relief, prevailing winds and proximity of the oceans did not enter as disturbing factors. Since water heats and cools more slowly than the land, the ocean is a great reservoir of warmth in winter and of cold in summer, and exercises therefore an equalizing effect upon the temperature of the adjacent continents, far as these effects can be carried by the wind. The ocean is also the great source of moisture, and this, too, it distributes over the land through the agency of the wind. Where warm ocean currents, like the Gulf Stream and Kuro Siwa, penetrate into temperate or sub-polar latitudes, or where cool ones, like the Peruvian and Benguela Currents wash the coasts of tropical regions, they enhance the power of the ocean and wind to mitigate the extremes of temperature on land. The warm currents, moreover, loading the air above them with vapor, provide a store of rain to the nearest wind-swept land. Hence both the rainfall and temperature of a given country depend largely upon its neighboring water and air currents, and its accessibility to the rain-bearing winds. If it occupies a marked central position in temperate latitudes, like eastern Russia or the Great Plains of our semi-arid West, it receives limited moisture and suffers the extreme temperatures of a typical continental climate. The same result follows if it holds a distinctly peripheral location, and yet lies in the rain-shadow of a mountain barrier, like western Peru, Patagonia and Sweden north of the sixtieth parallel. [See map page 484.]

Effect of the westerlies.

Owing to the prevalence of westerly winds in the Temperate Zones and particularly in the North Temperate Zone, the mean annual temperature is high on the western face of the northern continents, but drops rapidly toward the east.[9] This is especially true of winter temperatures, which even near the eastern coast show the severity of a continental climate. Sitka and New York, Trondhjem and Peking have the same mean January temperatures, though Peking lies in about the latitude of Madrid, over twenty-three degrees farther south.

Europe's location in the path of the North Atlantic westerlies, swept by winds from a small and narrow ocean which has been super-heated by the powerful Gulf Stream, secures

for that continent a more equable climate and milder winters than corresponding latitudes on the western coasts of North America, whose winds from the wide Pacific are not so warm.[10] Moreover, a coastal rampart of mountains from Alaska to Mexico restricts the beneficial influences of the Pacific climate to a narrow seaboard, excludes them from the vast interior, which by reason of cold or aridity or both must forever renounce great economic or historical significance, unless its mineral resources developed unsuspected importance. In Europe, the absence of mountain barriers across the course of these westerly winds from Norway to central Spain, and the unobstructed avenue offered to them by the Mediterranean Sea during fall and winter, enable all the Atlantic's mitigating influences of warmth and moisture to penetrate inland, and temper the climate of Europe as far east as St. Petersburg and Constantinople. Thus several factors have combined to give the western half of Europe an extraordinarily favorable climate. They have therefore greatly broadened its zone of historical intensity toward the north, pushed it up to the sixtieth parallel, while the corresponding zone in eastern Asia finds its northern limit at the fortieth degree.

Rainfall. Moisture and warmth are essential to all that life upon which human existence depends. Hence temperature and rainfall are together the most important natural assets of a country, because of their influence upon its productivity. The grazing capacity and wheat yield of southern Australia increase almost regularly with every added inch of rainfall.[11] The map of population for the Empire of India clearly shows that a high degree of density accompanies a high and certain rainfall. Exceptions occur only where hilly or mountainous tracts offer scant arable areas, or where plains and valleys are sparsely populated owing to political troubles or unhealthiness. Nearly three-tenths of the population are found crowded together on the one-tenth of India's level territory which is blessed with a rainfall above the average for the country.[12] Deserts which yield nothing are purely climatic phenomena. Steppes which facilitate the historical movement, and forests which block it, are products of scant or ample precipitation. The zonal distribution of

rainfall, with its maxima in the Tropics and the Temperate Zones, and its minima in the trade-wind belts and polar regions, reinforces and emphasizes the influence of temperature in determining certain great cultural and economic zones.

In equatorial regions, which have an abundant rainfall throughout the year, agriculture is directed toward fruits and roots; only in certain districts can it include cereals, and then only rice and maize. The temperate grains demand some dry summer weeks for their maturity. Excessive moisture in Ireland has practically excluded wheat-growing, which in England and Scotland also is restricted chiefly to the drier eastern counties.[13] It thrives, on the other hand, in Manitoba and the Red River region even with a short season of scant rainfall, because this comes in the spring when moisture is most needed.[14] Most important to man, therefore, is the question how and when the rainfall is distributed, and with what regularity it comes. Monsoon and trade-wind districts labor under the disadvantage of a wet and dry season, and a variability which brings tragic results, since it easily reduces a barely adequate rainfall to disastrous drought. These are the lands where wind and weather lord it over man. If the rains hold off too long, or stop too soon, or withhold even a small portion of their accustomed gift, famine stalks abroad.

Temperature and zonal location.

Temperature, the other important element of climate, depends primarily upon zonal location, which has far different historical results from central and peripheral location, continental and insular. It determines the amount of heat received from the sun, though air and ocean currents may redistribute that heat within certain limits, and humidity or aridity modify its effects. Still zonal distinctions remain. The great climatic regions of the earth, like the hot, wet equatorial belt or the warm, dry trade-wind belts or the cool, well-watered temperate zones, constitute, through the medium of their economic products and their climatically imposed methods of production, so many socio-political areas, regardless of ethnic and political boundaries. The Berber nomads of the northern Sahara live much as the Semitic Bedouins of the Syrian desert or the Turkoman stock of arid Turkestan.

They have the same tribal government, the same scattered distribution in small groups, the same economic basis of subsistence, though of different races and dominated respectively by France, Turkey and Russia. The history of the tropical Antilles has in both its economic and political features paralleled that of the East Indies since the early 16th century. Temperate South America promises to follow in the historical footsteps of temperate North America, South Africa in those of Europe and temperate Australia.

Reactions of contrasted zones.

While people of the same latitude live approximately under the same temperature conditions, those of contrasted zones are subjected to markedly different influences. They develop different degrees of civilization, wealth, economic efficiency, and density of population; hence they give rise to great historical movements in the form of migration, conquest, colonization, and commerce, which, like convection currents, seek to equalize the differences and reach an equilibrium. Nature has fixed the mutual destiny of tropical and temperate zones, for instance, as complementary trade regions. The hot belt produces numerous things that can never grow in colder countries, while a much shorter list of products, coupled, however, with greater industrial efficiency, is restricted to the Temperate Zone. This explains the enormous importance of the East Indian trade for Europe in ancient and medieval times, the value of tropical possessions for commercial countries like England and Holland. It throws light upon the persistence of the tropical plantation system in the Dutch East Indies and republican Mexico, as formerly in the sugar and cotton fields of the Southern States, with its relentless grip upon the throat of national life in hot lands.

Temperate products from tropical highlands.

Tropical regions, however, may profit by the fact that their mountains and plateaus permit the cultivation of temperate crops. India during the last century has introduced tea culture extensively on the Assam and Nilgiri Hills, and in the Himalayan valleys up to an altitude of 7000 feet.[15] Besides this temperate product, it has put large areas into cotton, chiefly in the peninsular plateau of the Deccan, and by means of these two crops has caused a considerable readjustment in world commerce.[16] Nevertheless, here the infringe-

ment of the principle of tropical production in the torrid zone is after all slight. In tropical America, on the other hand, the case is quite different; this region presents an interesting paradox in relation to its foreign commerce. Here the highlands are the chief seats of population. They contain, moreover, the most industrious and intelligent native stock, due to geographical and historical causes running back into the ancient civilizations, as well as the largest proportions of immigrant Europeans. This is true not only of the Cordilleran states from northern Mexico to the borders of Chile, but also of Brazil, whose center of population falls on the plateau behind Rio de Janeiro and Santos. The isolation of these high plateaus excludes them to a serious extent from foreign trade, while their great altitude permits only temperate products, with the exception of sub-tropical coffee, which is their only crop meeting a great demand. The world wants, on the other hand, the long list of lowland tropical exports which torrid America furnishes as yet in inadequate amounts, owing to the lack of an industrious and abundant lowland population. Commerce will eventually experience a readjustment in these localities to the natural basis of tropical production; but how soon or how effectively this change will take place depends upon the question of immigration of foreign tropical peoples, or the more difficult problem of white acclimatization.[17]

Isothermal lines in anthropo-geography.

Despite some purely climatological objections, anthropo-geography finds the division of climatic zones according to certain isothermal lines of mean annual temperature the most expedient one for its purpose. The hot zone may be taken as the belt north and south of the equator enclosed between the annual isotherms of 20° C. (68° F.) These hold a course generally far outside the two tropics, and in the northern continents frequently reach the thirty-fifth parallel. The temperate climatic zones extend from the annual isotherm of 20° C. to that of 0° C. (32° F.), which bears little relation to the polar circles forming the limits of the solar Temperate Zone. The north temperate climatic zone has been further sub-divided along the annual isotherm of 5° C. (41° F.), distinguishing thus the warmer southern belt, which

forms preëminently the zone of greatest historical intensity. The areas beyond the annual isotherms of 0° C. belong to the barren cold zones. [See map page 612.]

Historical effect of compressed isotherms.

This isothermal division of the climatic zones is abundantly justified, because the duration of a given degree of heat or cold in any region is a dominant factor in its human, animal, and plant life. A map of the mean annual isotherms of the earth is therefore eloquent of the relation between historical development and this one phase of climate. Where the lines run far apart, they enclose extensive areas of similar temperature; and where they approach, they group together regions of contrasted temperatures. The compression of climatic differences into a small area enlivens and accentuates the process of historical development. It produces the same sort of effect as the proximity of contrasted reliefs. Nowhere else in the world do the tropical and frigid climatic areas, as defined on the north and south by the annual isothermal lines of 20° C. and 0° C. respectively, lie so near together as in Labrador and northern Florida. Separated here by only twenty degrees of latitude, on the opposite side of the Atlantic they diverge so sharply as to include the whole western face of Europe, from Hammerfest and the North Cape down to the Canary Islands and the crest of the Atlas Mountains in Africa, a stretch of forty-two degrees of latitude. This approximation of contrasted climatic districts in North America was an immense force in stimulating the early economic development of the Thirteen Colonies, and in maturing them to the point of political autonomy. It gave New England commerce command of a nearby tropical trade in the West Indies, of sub-tropical products in the southern colonies, in close proximity to all the contrasted products of a cold climate—dense northern forests for naval stores and lumber, and an inexhaustible supply of fish from polar currents, which met a strong demand in Europe and the Antilles. The sudden southward drop of the 0° C. annual isothermal line toward the St. Lawrence and the Great Lakes brought the northwestern fur trade to the back gate of New York, where it opened on the Mohawk and upper Hudson, and brought prosperity to the young colony. Even to-day the center of

collection for the Canadian fur fields is Quebec, located at 47° north latitude, while the corresponding point of concentration in Europe for the furs of Russia and Siberia is Nizhni-Novgorod, which lies ten degrees farther north.[18]

Effect of slight climatic differences.

This compression of the isotherms emphasizes the differences of national characters produced in part by dissimilar climatic conditions. Contrasts in temperament, manner of life, and point of view, like that between the New Englander and Virginian, Chilean and Bolivian in the Americas, Breton and Provençal in France, Castilian and Andalusian in Spain, Gurkha and Bengali in India, seem to bleach out when they are located far apart, owing to many grades of transition between; but they become striking, stimulating, productive of important economic and political results, when close juxtaposition enables them to react sharply one upon the other. In effecting these nice differentiations of local types, climate is nearly always one of the factors at work, emphasizing perhaps an existing ethnic difference. Even the slight variations of temperature to be found in the same zone or the same climatic region produce distinct results, especially where they are harnessed, as is usually the case, with some other geographic condition of relief, area or soil, pulling in the same direction. Mexico, Peru, Italy, Switzerland, Greece and Asia Minor, with its high plateau interior and its contrasted Euxine and Aegean coasts, represent each a complex of climatic differences, which, reinforced by other geographic factors, have made in these regions a polychrome picture of national life.

Effect of climate upon distribution of immigration.

Climatic contrasts aid differentiation also by influencing both natural and artificial selection in the distribution of peoples. This effect is conspicuous in the distribution of immigrants in all colonial lands like Africa, South America and in every part of the United States.[19] The warm, moist air of the Gulf and South Atlantic States is attracting back to the congenial habitat of the "black belt" the negroes of the North, where, moreover, their numbers are being further depleted by a harsh climate, which finds in them a large proportion of the unfit. The presence of a big negro laboring class in the South, itself primarily a result of climate, has long

served to exclude foreign immigration, which sought therefore the unoccupied lands and the congenial climate of the more bracing North. Hence it is both a direct and indirect effect of climate that the North shows a large proportion of aliens, and the white population of the South an almost unadulterated English stock.

Climate and race temperament.

The influence of climate upon race temperament, both as a direct and indirect effect, can not be doubted, despite an occasional exception, like the cheery, genial Eskimos, who seem to carry in their sunny natures an antidote to the cold and poverty of their environment. In general a close correspondence obtains between climate and temperament. The northern peoples of Europe are energetic, provident, serious, thoughtful rather than emotional, cautious rather than impulsive. The southerners of the sub-tropical Mediterranean basin are easy-going, improvident except under pressing necessity, gay, emotional, imaginative, all qualities which among the negroes of the equatorial belt degenerate into grave racial faults. If, as many ethnologists maintain, the blond Teutons of the north are a bleached out branch of the brunette Mediterranean race, this contrast in temperament is due to climate. A comparison of northern and southern peoples of the same race and within the same Temperate Zone reveals numerous small differences of nature and character, which can be traced back directly or indirectly to climatic differences, and which mount up to a considerable sum total. The man of the colder habitat is more domestic, stays more in his home. Though he is not necessarily more moderate or continent than the southerner, he has to pay more for his indulgences, so he is economical in expenditures. With the southerner it is "easy come, easy go." He therefore suffers more frequently in a crisis. The low cost of living keeps down his wages, so that as a laborer he is poorly paid. This fact, together with his improvidence, tends to swell the proletariat in warm countries of the Temperate Zone; and though here it does not produce the distressing impression of a proletariat in Dublin or Liverpool or Boston, it is always degrading. It levels society and economic status downward, while in the cooler countries of the Temperate Zone, the process is upward.

The laborer of the north, owing to his providence and larger profits, which render small economies possible, is constantly recruited into the class of the capitalist.

Everywhere a cold climate puts a steadying hand on the human heart and brain. It gives an autumn tinge to life. Among the folk of warmer lands eternal spring holds sway. National life and temperament have the buoyancy and thoughtlessness of childhood, its charm and its weakness. These distinctions and contrasts meet us everywhere. The southern Chinese, and especially the Cantonese, is more irresponsible and hot-blooded than the Celestial of the north, though the bitter struggle for existence in the over-crowded Kwangtung province has made him quite as industrious; but on his holidays he takes his pleasure in singing, gambling, and various forms of dissipation. The southern Russian is described as more light-hearted than his kinsman of the bleaker north, though both are touched with the melancholy of the Slav. In this case, however, the question immediately arises, how far the dweller of the southern wheat lands owes his happy disposition to the easy conditions of life in the fertile Ukraine, as opposed to the fiercer struggle for subsistence in the glaciated lake and forest belt of the north. Similar distinctions of climate and national temperament exist in the two sections of Germany. The contrast between the energetic, enterprising, self-contained Saxon of the Baltic lowland and the genial, spontaneous Bavarian or Swabian is conspicuous, though the only geographical advantage possessed by the latter is a warmer temperature attended by a sunnier sky. He contains in his blood a considerable infusion of the Alpine stock and is therefore racially differentiated from the northern Teuton,[20] but this hardly accounts for the difference of temperament, because the same Alpine stock is plodding, earnest and rather stolid on the northern slope of the Alps, but in the warm air and sunshine of the southern slope, it abates these qualities and conforms more nearly to the Italian type of character. The North Italian, however, presents a striking contrast to the indolent, irresponsible, improvident citizens of Naples, Calabria and Sicily, who belong to the contrasted Mediterranean race, and have been

Contrasted temperaments in the same nation.

longer subjected to the relaxing effects of sub-tropical heat.

Complexity of the geographic problem.

Where the climatic difference is small, it is nevertheless often conspicuous enough to eclipse other concomitant factors which are at work, and hence to encourage the formation of some easy blanket theory of climatic influences. But just because the difference is slight, all attending geographic and ethnic circumstances ought to be scrutinized, to insure a correct statement of the geographical equation. The contrast between the light-hearted, gracious peasants of warm, sunny Andalusia and the reserved, almost morose inhabitants of cool and cloudy Asturias is the effect not only of climate but of the easy life in a fertile river plain, opposed to the bitter struggle for existence in the rough Cantabrian Mountains. Moreover, a strong infusion of Alpine blood has given this group of Spanish mountaineers the patience and seriousness which characterizes the race in other parts of continental Europe.[21] The conditions which have differentiated Scotch from English have been climate, relief, location, geologic composition of the soil, and ethnic composition of the two peoples. The divergent development of Northerners and Southerners in America arose from contrasts in climate, soil and area. It was not only the enervating heat and moisture of the Southern States, but also the large extent of their fertile area which necessitated slave labor, introduced the plantation system, and resulted in the whole aristocratic organization of society in the South.[22]

Monotonous climatic conditions.

When one type of climate extends monotonously over a vast area, as in Russia, Siberia, Central Asia or immense tracts of Africa, the differences of temperature which prick and stimulate national endeavor in small climatic districts here lose much of their force. Their effects flatten out into insignificance, overwhelmed by the encounter with too large a territory. All the southern continents are handicapped by the monotony of their zonal location. The map of annual isotherms shows Africa quite enclosed between the two torrid lines of 20° Centigrade, except for a narrow sub-tropical belt along the Barbary coast in the north, and in the south an equally narrow littoral extending east and north from the Cape of Good Hope. At first glance, the large area of South Africa lying on the temperate side of the Tropic of Capricorn

raises hopes for a rich economic, social and cultural development here; but these are dashed by an examination of the isotherms. Excessive heat lays its retarding touch upon everything, while a prevailing aridity (rainfall less than 10 inches or 25 centimeters), except on the narrow windward slope of the eastern mountains, gives the last touch of climatic monotony. The coastal belt of Cape Colony and Natal raise tropical and sub-tropical products[23] like all the rest of the continent, while the semi-arid interior is committed with little variations to pastoral life. [See maps pages 484 and 487.] Climatic monotony, operating alone, would have condemned South Africa to poverty of development, and will unquestionably always avail to impoverish its national life. South African history has been made by its mines and by its location on the original water route to India; the first have dominated its economic development, and the latter has largely determined its ethnic elements—English, Dutch, and French Huguenots, while the magnet of the mines has drawn other nationalities and especially a large Jewish contingent into the urban centers of the Rand.[24] In the background is the native Kaffir and Hottentot stocks, whose blood filters into the lower classes of the white population. The diversity of these ethnic elements may compensate in part for the monotony of climatic conditions, which promise to check differentiation. However, climatic control is here peculiarly despotic. We see how it has converted the urban merchants of Holland and the skillful Huguenot artisan of France into the crude pastoral Boer of the Transvaal.

In contrast to South Africa, temperate South America has an immense advantage in its large area lying outside the 20°C. isotherm, and in the wide range of mean temperatures (from 20°C. to 5°C.) found between the Tropic of Capricorn and Tierra del Fuego. Climate and relief have combined to make the mouth of the La Plata River the site of the largest city of the southern hemisphere. Buenos Ayres, with a population of over a million, reflects its large temperate hinterland.

The effects of Arctic cold.

Frigid zones and the Tropics alike suffer from monotony, the one of cold and the other of heat. The Arctic climatic

belt, extending from the isotherm of 0°C. (32°F.) to the pole, includes inhabited districts where the mean annual temperature is less than −15°C. (or 5°F.), as at the Greenland village of Etah on Smith's Sound and the Siberian town of Verkhoyansk. Here the ground is covered with ice or snow most of the year, and permanently frozen below the surface. Animal and plant life are reduced to a minimum on the land, so that man, with every poleward advance of his thin-strung settlements, is forced more and more to rely on the sea for his food. Hence he places his villages on narrow strips of coast, as do the Norse of Finmarken, the Eskimo and the Tunguse inhabiting the Arctic rim of Asia. Products of marine animals make the basis of his domestic economy. Farther inland, which means farther south, all tribes live by hunting and fishing. The Eurasian Hyperboreans find additional subsistence in their reindeer herds, which they pasture on the starchy lichen (Cladonia rangiferina) of the tundra. [See maps pages 103, 153.]

Similarity of cultural development.

Though these Arctic folk are sprung from diverse race stocks, close vicinal location around an enclosed sea has produced some degree of blood relationship. But whatever their origins, the harsh conditions of their life have imposed upon them all a similar civilization. All population is sparse and more or less nomadic, since agriculture alone roots settlement. They have the same food, the same clothing, the same types of summer and winter dwellings, whether it is the earth hut of the Eskimo or of the coast Lapp, the Siberian Yukagirs of the Kolima River, or the Samoyedes of northeastern Russia.[25] The spur of necessity has aroused their ingenuity to a degree found nowhere in the drowsy Tropics of Africa. Dread of cold led the Yakuts of the Lena Valley to glaze the windows of their huts with slabs of ice, which are better nonconductors of heat and cold, and can be made more perfectly air-tight than glass. Hence these windows have been adopted by Russian colonists. The Eskimo devised the oil lamp, an invention found nowhere else in primitive America, and fishing tackle so perfect that white men coming to fish in Arctic waters found it superior to their own.

Owing to the inexorable restriction of their natural resources, contact with European commerce has impoverished

the Hyperborean natives. It has caused the rapid and ruthless exploitation of their meager resources, which means eventual starvation. So long as the Ostyaks, before the coming of the Russians, were sole masters of the vast forests of the Obi Valley, they commanded a supply of fish and fur animals which sufficed for their sparse population. But the greed of the Russian fish dealers and fur traders, and the devastating work of the lumbermen have made double war upon Ostyak sources of subsistence.[20] The appearance of the white man in Alaskan waters was the signal for the indiscriminate killing of seal and other marine animals, till the Eskimo's supply of food and furs has been seriously invaded, from Greenland to the outermost Aleutian Islands. In all this wide territory, climatic conditions forbid any substitute for the original products, except the domesticated reindeer on the tundra of the mainland; but this would necessitate the transformation of the Eskimo from a hunting to a pastoral people. This task the government at Washington has undertaken, but with scant success.

Cold and health.

In contrast to the numerous indirect effects of a frigid climate, no direct physiological effect can be positively ascribed to intense cold. It lays no bodily handicap on health and energy, as does the excessive heat of the Tropics. The coldest regions where tillage is possible are tolerable places of residence, because their winters are intensely dry. That of central Siberia, which is drier than the driest desert, makes tent life comfortable in the coldest season, provided the tenter be clad in furs. The low temperatures of the Canadian Northwest for the same reason have not repelled settlers even from the Southern States. Negroes, however, meet a climatic barrier in America at the isotherm of 5° Centigrade (41° F.). They are found in New England and Nova Scotia, generally with a large admixture of white blood; but there and farther north where the climate is moist as well as cold, they show a fatal tendency to pulmonary diseases.

The small amount of tropical emigration.

The acclimatization of tropical people in temperate regions will never be a question of widespread importance. The negroes were involuntary immigrants to America, under conditions that can never recur. Their concentration in the

"black belt," where they find the heat and moisture in which they thrive, and their climatically conditioned exclusion from the more northern states are matters of local significance. Economic and social retardation have kept the hot belt relatively underpopulated. The density map shows much the largest part of it with a population less than 25 to the square mile. Only the small portion contained in India, southernmost China, and Java shows a density over 125 to the square mile (or 50 to the square kilometer). This density has to rise to 500 or more to the square mile before emigration begins. The would-be exiles then have a wide choice of new homes in other tropical lands, where they find congenial climate and phases of economic development into which they will fit. East Indian coolies are found in Cape Colony, Natal, Zanzibar, Trinidad, and British Guiana, where they constitute 38 per cent. of the population.

Effects of tropical climate.

The redundant population of crowded western and southern Europe also seek these sparsely inhabited Tropics, but they come heavily handicapped by the necessity of acclimatization. They leave their homes from Trondhjem and Stockholm in the north to the Mediterranean in the south, where the mean annual temperatures vary from 5° to 17° C. (41° to 63° F.), to seek the Torrid Zone which averages 25° C. or 77° F. over most of its territory. The effects of a tropical climate are due to intense heat, to its long duration without the respite conferred by a bracing winter season, and its combination with the high degree of humidity prevailing over most of the Torrid Zone. These are conditions advantageous to plant life, but hardly favorable to human development. They produce certain derangements in the physiological functions of heart, liver, kidneys and organs of reproduction. Bodily temperature rises, while susceptibility to disease and rate of mortality show an increase ominous for white colonization. The general effect is intense enervation; this starts a craving for stimulants and induces habits of alcoholism which are accountable for many bodily ills usually attributed to direct climatic influences. Transfer to the Tropics tends to relax the mental and moral fiber, induces indolence, self-indulgences and various excesses which lower the physical tone.[27] The social control

of public opinion in the new environment is weak, while temptation, due to both climatic and social causes, is peculiarly strong. The presence of an inferior, more or less servile native population, relaxes both conscience and physical energy just when both need a tonic. The result is general enervation, deterioration both as economic and political agents.

Historical significance of deterioration.

This is the effect of climate which has had the most far-reaching and persistent historical consequences. Our study of the historical movements of peoples in the northern hemisphere revealed a steady influx from colder into tropical and sub-tropical lands, followed always by enervation and loss of national efficiency, due partly to the debilitating heat of the new habitat, partly to its easier conditions of living, whether the intruders came as conquerors and appropriated the fat of the land, or as immigrant colonists who dropped into slack methods of agriculture, because rain and sun and soil made their reluctant labor scarcely necessary. Everywhere in the Tropics the enervating effects of heat, moisture, and abundance make not only the natives averse to steady work, but start the energetic European immigrant down the same easy descent to Avernus. Passing over the deterioration of the Aryans in India, the Persians in Mesopotamia, and the Vandals in Africa, we find that modern instances show the transformation to be very rapid. The French who since 1715 have occupied the islands of Réunion and Mauritius have lost much of their thrift and energy, though their new homes lie just within the southern tropic, and are blessed with an oceanic climate. Yet the volunteer troops sent by Réunion to aid in the recent subjugation of the Hovas in Madagascar proved to be utterly useless.[28] The Spaniards who come to-day to Mexico have great energy, born of their former hard conditions of life in Spain. But their children are reared in a country whose mean annual temperature, even on the plateau, exceeds that of Spain by 10°C. (or 18°F.), a difference equal to that between Mobile and New York, or Madrid and Christiania. Hence they are less energetic and vigorous, while the third generation are typical Mexicans in their easy-going way of life.[29] The Germans who recently have colonized southern Brazil in great numbers show a similar

deterioration under similar increase of mean annual temperature, combined with somewhat greater humidity, which intensifies the debilitating effects of the heat. An investigation made in 1900 by the International Harvester Company of America revealed the fact that the German farmer in the State of Santa Catharina rarely cultivated over one acre of grain.[30] Much of the iron in the blood and conscience of the New England missionary stock which went to Hawaii two generations ago has been dissolved out by the warm rain and balmy air of the islands.

The problem of acclimatization.

In all these instances the white race has been successfully transplanted. It has domiciled itself on the borders of the Tropics and has propagated its kind, though it has abated some of the vigorous qualities which characterized it in its temperate fatherland. In the real Tropics like India, Cochin China, the Malay Archipelago, and Central Africa, the whole perplexing and urgent problem of European colonization turns on the difficulty or impossibility of acclimatization; and this in turn affects the whole economic, ethnic and political destiny of present colonial holdings. If acclimatization is impossible, the alternative is an imported ruling class, constantly invalided and as constantly renewed, aided by a similar commercial body acting as superintendents of labor; the whole machine of government and economic exploitation is supported by a permanent servile native population, doing the preëminently tropical work of agriculture, which is so fatal to the white man in a torrid climate. This means that the conquering white race of the Temperate Zone is to be excluded by adverse climatic conditions from the productive but undeveloped Tropics, unless it consents to hybridization, like the Spaniards and Portuguese of tropical America. In that national struggle for existence which is a struggle for space, it means an added advantage for the Mediterranean peoples, that they are more tolerant of a torrid climate than the blond Teutons, whose disability in this regard is pronounced; it means that the aptitude of the Chinese for a wide range of climatic accommodation, from the Arctic circle to the equator, lends color to "the yellow peril."

Historical importance of the temperate zones.

In contrast to the monotonous extremes of climate in the

hot and cold zones, temperate lands are characterized by the intermediate degrees of annual temperature and marked seasonal diversity which are so favorable to human development. In Arctic lands labor is paralyzed by cold as it is by heat in the enervating and overproductive Tropics. In one, the growing season is too short and ill-favored; in the other, too long to stimulate man to sustained industry. Hence the Temperate Zones, whose climate avoids both these extremes and abounds in contrasts, whose summers are productive enough to supply food for the winter, and whose winters give both motive and energy for the summer's work, are richer in cultural possibilities and hence in historical importance.

Effects of contrasted seasons.

The advantage of the Temperate Zone is not only its moderate and adequate allowance of heat, but its contrast of seasons. Beyond the range of a vertical sun, grades of temperature change rapidly from latitude to latitude and from summer to winter. The seasons bring variety of activities, which sharply react upon one another. Manufactures were in their origin chiefly winter industries, as they still are in small isolated communities. The modern factory system flourishes best in cooler parts of the Temperate Zone, where the agricultural demands of the summer, spreading over a shorter period, leave a longer time for winter work, and where that once long winter of the Glacial Period, by the scouring action of the ice cap, has reduced the fertile area of the northern fields. The factory system is also favored, as Heinrich von Treitschke maintains, by the predominance of cool or cold weather, which facilitates the concentration of numerous workmen in large buildings, and renders possible long labor hours the year round,[31]—conditions unthinkable in a warm climate. The iron and steel industries which have grown up about Birmingham, Alabama, find that the long hot summers and mild winters reduce the efficiency of their skilled labor imported from the North.

Effects of length of seasons.

The length of the seasons is of conspicuous importance. It determines, for instance, whether a given climate permits continuous field work with summer and winter crops, whether field work is possible at all, and how long it is interrupted by excessive cold. Buckle maintains that climate not only

enervates or invigorates man, but affects also the constancy of his work and his capacity for sustained labor throughout the year. He considers "that no people living in a very northern latitude have ever possessed that steady and unflinching industry for which the inhabitants of temperate regions are remarkable," and assigns as a reason "that the severity of the weather, and, at some seasons, the deficiency of light, render it impossible for the people to continue their usual out-of-door employments." The result of this he finds to be desultory habits of work, which help to make the national character fitful and capricious. He cites in illustration of his principle the people of the Scandinavian and Iberian peninsulas, whom he finds marked "by a certain instability and fickleness of character," owing to the fact that in Norway and Sweden agricultural labor experiences long interruptions, due to the severity of the winter and the shortness of the days; in Spain and Portugal owing to the heat and drought of summer.[32] The extreme continental climate of northern Russia with its violent contrast of the seasons, its severe and protracted winters, enables Leroy-Beaulieu to make a safer application of this principle to the empire of the Czars, which, unlike Scandinavia, feels no ameliorating effect from the mild Atlantic winds and commands no alternative industries like dairy farming, fisheries, and maritime trade.[33] Hence Leroy-Beaulieu attributes the unsystematic, desultory habits of work prevailing among the northern peasants to the long intermission of labor in winter, and to the alternation of a short period of intense activity with a long period of enforced idleness. He finds them resembling southern peoples in their capacity for sudden spurts of energy rather than sustained effort, thinks them benumbed by the sloth of the far north, which is not unlike the sloth of the south.[34]

Effect of long winters.

The dominant continental and central location of Russia enables its climatic extremes to operate with little check. The peripheral location of Scandinavia in the path of the Atlantic winds modifies its climate to a mild oceanic type, and its dominant maritime situation gives its people the manifold resources of a typical coast land. Hence Buckle's estimate of national character in the Scandinavian Peninsula has

little basis as to fact or cause. Irregularity of agricultural labor does not mean here cessation of all labor, and hence does not produce the far-reaching effect ascribed to it. Only about one-third of the Norwegian population is engaged in agriculture. The restriction of its arable and meadow land to 3 per cent. of the whole territory, and the fact that a large proportion of the people are employed in shipping and the fisheries,[35] are due to several geographic factors besides climate. The same thing is true of Sweden in a modified degree.

Complexity of climatic effects.

Caution should be exercised in drawing conclusions from climate alone or from only one phase of its influence. The duration and intensity of the seasons affects not only the manner of work, but the whole mode of life of a people. On the Yukon, in Iceland, and the high mountain valleys of the Alps, winter puts a check not only upon out-of-door labor, but upon all public or community life. Intercourse stops or is greatly restricted. The outside world drops away. In Iceland, the law courts are in session only in summer when the roads by sea and land are open. In the Kentucky mountains the district schools close before Christmas, when the roads become impassable from rain and snow; the summer is the gala time for funeral services, for only then can the preacher or "circuit-rider" reach the graves made in the winter. Therefore the funerals in one community accumulate, so to speak, and finally, when leisure comes after the August harvest, they make the occasion for important social gatherings. Much of the influence of winter lies in its power to isolate.

It is the economic effects of such periods of enforced idleness which are most obvious, both in their power to restrict national wealth and keep down density of population. When long, they limit subsistence to the products of a short growing season, except where local mining adds considerable sources of revenue. In the Russian government of Yaroslaf, located on the northernmost bend of the Volga within the agricultural belt, and containing the chief inland wheat market of the Empire, the field labor of four months must support the population for the remaining eight months of the year. The half of Russia included in the cold forest zone of the north maintains meagerly a sparse population, and

can hope for an increase of the same only by the encouragement of industrial pursuits. Here the long winter leisure has created the handicrafts on which so many villages rely, and which in turn have given rise to peddling,[36] as we have seen it do in high mountain regions where altitude intensifies and prolongs the winter season. Agricultural and industrial life are still undivorced, just as in primitive communities. The resulting population has also the primitive mark of great sparsity, so that modern industry, which depends upon a concentrated labor force, is here inhibited. Hence Russian manufactures, which are so active in the governments of Vladimir, Moscow, and St. Petersburg, cease beyond the sixtieth parallel, which defines the northern limit of the agricultural belt and the beginning of the forest and the fur zone.[37] [See maps pages 8 and 612.]

Social effects of long winters.

The rigorous climate of Russia was undoubtedly one cause for the attachment of the peasants to the soil in 1593. This measure was resorted to at a time when the Muscovite dominion from its center in Great Russia had recently been extended at the expense of the Tartars, and had thus embraced fertile southern lands, which tempted the northern peasant away from his unfruitful fields.[38] This attraction, coupled with the free and hopeful life of the frontier, met the migrant instinct bred in the peasant by the wide plains and far horizon of Russia, so that the north threatened to be left without cultivators. Later, the harsh climatic conditions of the north were advanced as an argument against the abolition of serfdom, on the ground that this system alone secured to the landed proprietor a steady labor supply, and guaranteed to the peasant his maintenance during the long, idle winter.

The duration and severity of the cold season has put a drag upon the wheel of enterprise in Canada, as opposed to the warmer United States. The prairies of the Canadian Northwest, whose fertile soil should early have attracted settlement, were a closed land till railroads could pour into it every summer from the warmer south and east a seasonal tide of laborers. These follow the harvest as it advances from point to point, and then withdraw in autumn either to the lumber camps of eastern Canada, Minnesota and Wisconsin,

or to seek other forms of out-door labor in the more southern states, thus lifting from the Canadian farmer the burden of their winter support.

In the lower latitudes of the Temperate Zones, where the growing season is long and the dormant period correspondingly short and mild, we find agriculture based upon clearly distinguished winter and summer crops, as in the northern Punjab (30° to 34° N. L.);[39] or producing a quick succession of valuable crops, where the fertility of the soil can be maintained by manures or irrigating streams, as in many of the warmer Southern States and in Spain[40] respectively. In Argentine, where tillage is extensive, land abundant, and population sparse, where, in fact, "skimp farming" is the rule, the shrewd cultivator takes advantage of the long growing season to stretch out his period of sowing and reaping, and thus tills a larger area. The International Harvester Company of America, investigating the reason for the small number of reaping machines employed in Argentine in proportion to the area under cultivation, found that the simple climatic condition of a long growing season enabled one reaper to serve about twice the acreage usual in the United States, because it could work twice as long.[41]

Zones of culture.

Over and beyond slight local variations of climate and season within the same zone, which contribute their quota to economic and historical results, it is the fundamental differences between the hot, cold and temperate climatic zones that produce the most conspicuous and abiding effects. These broad belts, each with its characteristic climatic conditions and appropriate civilization, form so many girdles of culture around the earth. They have their dominant features of heat and cold, variously combined with moisture and aridity, which give a certain zonal stamp to human temperature and development.

The two cold belts have little claim to the name of cultural zones, since their inability to support more than an insignificant population has made them almost a negligible factor in history. [Compare maps pages 8, 9, and 612.] The discoveries and settlements of the Northmen in Greenland remained a barren historical event, though the vikings' ships

reached a new hemisphere. Iceland is the only land in this sub-arctic region which ever figured upon the stage of history; and its rôle was essentially passive. Such prominence as it acquired was due to its island nature and its situation in a swirl of the Gulf Stream, which ameliorates the worst climatic effects of its far northern location, and brings it just within the upper limit of the temperate belt. The wide sub-arctic lowlands of Russia and Siberia, which, from the Ural Mountains to the lower Amur River, stretch the cold zone well below the sixtieth parallel, have at times in the last three centuries and especially in the past decade thrown their great mass into the scale of eastern Asiatic history. This has been possible because the hot summer characteristic of continental climates forces the July isotherm of 20° C. northward over the vast heated surface of Asia nearly to the sixtieth parallel, well within the borders of Siberia. It gives that belt the short but warm growing season with protracted hours of sunshine which is so favorable to cereals, leading to Omsk, Tomsk, Vitimsk and all the stretch of Russian settlements in Siberia, an admirable summer climate like that of the Canadian Northwest.[42]

The cradle of civilization.

The North Temperate Zone is preëminently the culture zone of the earth. It is the seat of the most important, most steadily progressive civilizations, and the source of all the cultural stimuli which have given an upward start to civilization in other zones during the past three centuries. It contains the Mediterranean basin, which was the pulsing heart of ancient history, and all the modern historically important regions of Europe, Asia, Africa, and America. The temperate belt of the southern hemisphere also is following its lead, since European civilization has been transplanted to other parts of the world. This is the zone which least suffers from the drawbacks of climatic monotony or extremes, and best combines, especially in the northern hemisphere, the wide range of annual and seasonal variety so favorable to economic and cultural development, with the incalculable advantage of large land area.

Man grew in the temperate zone, was born in the Tropics. There, in his primitive, pre-civilized state, he lived in a moist,

warm, uniform climate which supplied abundantly his simple wants, put no strain upon his feeble intellect and will. That first crude human product of Nature's Pliocene workshop turned out in the steaming lowland of Java, and now known to us as the *Pithecanthropus erectus*, found about him the climatic conditions generally conceded to have been necessary for man in his helpless, futile infancy. Where man has remained in the Tropics, with few exceptions he has suffered arrested development. His nursery has kept him a child. Though his initial progress depended upon the gifts which Nature put into his hands, his later evolution depended far more upon the powers which she developed within him. These have no limit, so far as our experience shows; but their growth is painful, reluctant. Therefore they develop only where Nature subjects man to compulsion, forces him to earn his daily bread, and thereby something more than bread. This compulsion is found in less luxurious but more salutary geographic conditions than the Tropics afford, in an environment that exacts a tribute of labor and invention in return for the boon of life, but offers a reward certain and generous enough to insure the accumulation of wealth which marks the beginning of civilization.[43]

Most of the ancient civilizations originated just within the mild but drier margin of the Temperate Zone, where the cooler air of a short winter acted like a tonic upon the energies relaxed by the lethargic atmosphere of the hot and humid Tropics; where congenial warmth encouraged vegetation, but where the irrigation necessary to secure abundant and regular crops called forth inventiveness, coöperation, and social organization, and gave to the people their first baptism of redemption from savagery to barbarism. Native civilizations of limited development have arisen in the Tropics, but only where, as in Yemen, Mexico and Peru, a high, cool, semi-arid plateau, a restricted area of fertile soil, and a protected location alternately coddled and spurred the nascent people.

As the Tropics have been the cradle of humanity, the Temperate Zone has been the cradle and school of civilization. Here Nature has given much by withholding much. Here man found his birthright, the privilege of the struggle.

NOTES TO CHAPTER XVII

1. G. G. Chisholm, Commercial Geography, p. 15. London, 1904.
2. Montesquieu, The Spirit of Laws, Vol. I, Book XIV. London, 1906.
3. W. Z. Ripley, Races of Europe, pp. 574-578. New York, 1899.
4. Julius Hann, Handbook of Climatology, Part I, pp. 223-224. New York, 1903.
5. Isaiah Bowman, Distribution of Population in Bolivia, *Bulletin of Geographical Society of Philadelphia*, Vol. VII, pp. 40, 41.
6. Ratzel, *Aus Mexico*, p. 415, Note 14. Breslau, 1878.
7. Julius Hann, Handbook of Climatology, Part I, pp. 224-227. New York, 1903.
8. G. G. Chisholm, Commercial Geography, p. 23. London, 1904.
9. Julius Hann, Handbook of Climatology, Part I, pp. 171-173. New York, 1903.
10. *Ibid.*, pp. 188-189.
11. *Ibid.*, pp. 57-58.
12. Risley and Gait, Census of India for 1901, Vol. I, Part 1, pp. 14-21, map p. 4. Calcutta, 1903.
13. H. J. Mackinder, Britain and the British Seas, pp. 173-174. London, 1904.
14. G. G. Chisholm, Commercial Geography, pp. 65-66. London, 1904.
15. *Ibid.*, 126-128. Holdich, India, p. 259. London, 1905.
16. G. G. Chisholm, Commercial Geography, pp. 114, 382. London, 1904.
17. J. Russell Smith, The Economic Importance of the Tropical Plateaus in America, House Doc. 460, 58-3—53, pp. 829-835. Washington, 1904.
18. G. G. Chisholm, Commercial Geography, p. 160. London, 1904.
19. E. C. Semple, American History and Its Geographic Conditions, Chap. XV. Boston, 1903.
20. W. Z. Ripley, Races of Europe, pp. 215-238. New York, 1899.
21. *Ibid.*, p. 276, Map p. 274.
22. E. C. Semple, American History and Its Geographic Conditions, p. 280-283. Boston, 1903.
23. G. G Chisholm, Commercial Geography, pp. 434, 436. London, 1904.
24. H. R. Mill, International Geography, p. 1009. New York, 1902.
25. Ratzel, History of Mankind, Vol. II, pp. 218-225. London, 1896-1898.
26. *Ibid.*, Vol. II, p. 217.
27. W. Z. Ripley, Races of Europe, Chap. XXI. New York, 1899.
28. Dr. C. Keller, Madagascar, Mauritius, and Other East African Islands, pp. 172-175. London, 1901.
29. Matthias Romero, Mexico and the United States, Vol. I, p. 79. New York, 1898.
30. From a personal interview with the supervising agent for South America.
31. Heinrich von Treitschke, *Politik*. Vol. I, p. 212 et seq. Leipzig, 1897.
32. Henry Buckle, History of Civilization in England, Vol. I, p. 32. New York, 1884.

33. G. G. Chisholm, Commercial Geography, pp. 320-324. London, 1904.
34. Anatole Leroy-Beaulieu, Empire of the Tsars, Vol. I, pp. 6, 139-144. New York, 1893.
35. Norway, Official Publication, p. 308. Christiania, 1900.
36. A. Leroy-Beaulieu, Empire of the Tsars, Vol. I, pp. 19, 142, 327. New York, 1893.
37. G. G. Chisholm, Commercial Geography, pp. 214, 315. London, 1904.
38. A. Leroy-Beaulieu, Empire of the Tsars, Vol. I, pp. 412-413. New York, 1893.
39. Holdich, India, pp. 255-257. London, 1905.
40. G. G. Chisholm, Commercial Geography, p. 329. London, 1904.
41. From an interview with the supervising agent for South America.
42. G. G. Chisholm, Commercial Geography, p. 356. London, 1904.
43. Henry Buckle, History of Civilization in England, Vol. I, pp. 31-33. New York, 1884.

INDEX

Aargau, 527
Aar River, 369, 378, 597; valley, 113, 513
Abassine tribe, 587
Aberdeen, 264
Abo, 304
Abors, 584
Abraham, 47, 58, 107, 488, 493, 496
Abruzzi plateau, 567, 579
Abyssinia, 133, 141, 143, 155, 305, 309, 406; Mountains, 23, 215, 490, 500
Acanthus, 459
Acarnania, 363, 410
Accessibility, 19-20, 45, 118, 340-341, 458
Acclimatization, 37-38, 104, 121, 611, 617. See also Tropics
Achelous River, 327-328, 363, 410
Acre State, 231
Adda River Valley, 359, 548
Aden, 145, 154, 267, 268, 276, 426
Adige River Valley, 326, 369, 537, 539, 548, 597 598
Adirondack Mts., 522
Adriatic Sea, 140, 180, 283, 286, 300, 398, 527; coast of, 258, 261; hinterland of, 14, 30, 143, 339; trade of, 14, 149, 258, 314
Aduatici, 85
Aedui, 562
Aegean Sea, civilization of, 259, 402, 415-416; islands of, 265, 440, 444, 445, 446, 457, 459; period of history, 13, 67-68, 149, 249, 304, 311, 314
Aegina Island, 417, 425, 427, 457
Aetna, 560
Aetolia, 363, 535
Afghanistan, location of, 138, 143, 523, 529, 536, 538, 596; mountain tribes of, 525, 553-554; pastures of, 508, 548; water supply of, 357, 502
Africa, 98, 144, 155, 189, 278, 619; agriculture in, 81, 90, 570; coasts of, 39, 254, 255, 257, 263, 267, 275, 278, 280, 295 297, 302, 341, 423; location of, 99, 144, 309, 385, 386, 392, 393, 406, 622; native races of, 81, 100, 108, 111, 119, 120, 124, 391, 392, 393, 434; native states, 131, 195, 374, 495; nomadism and aridity, 7, 64, 133, 152, 491-492, 495, 500; structure of, 75, 117, 144, 173, 254, 297, 340, 341, 392, 393, 474. See also North, South, East and West Africa
Agricultural lands bordering deserts and steppes, 7, 137, 226-228, 486-487, 500-502. See also Nomads
Agriculture, geographic conditions for, 44, 64, 81, 261-262, 476-477, 559-560; migratory, 55, 62, 116, 182, 501; sedentary, 47, 56, 59, 60, 61, 65, 182, 501-502, 570-571; soils and, 35, 63, 212, 261-262. See Terrace agriculture
Ainos, 176, 272, 388, 395, 418, 423, 437, 442
Air oasis, 511
Airola, 550
Aksu, 359
Alabama, 102, 217-218, 481
Alamanni, 540
Alans, 86, 109
Alaska, coast of, 15, 36, 57, 152, 163, 182, 248, 261-262, 278, 299, 302, 303, 330, 337, 395, 397, 417; location of, 30, 77, 88, 248, 384, 394, 405; native tribes of, 63, 100, 135, 137, 152, 278, 330; Russians in, 29, 110, 235, 285
Albanians, 180, 404, 595
Albany, 5, 337
Albinoes, 38
Aleppo, 58, 505
Aleutian Islands, 29, 36, 248, 266, 388, 419, 625
Alexander the Great, 309, 312, 337, 402
Alexandria, 276, 283, 347
Alfred the Great, 372, 438
Algeria, 132, 152, 157, 160, 163, 212, 502, 511, 514
Algonquins, 55, 89, 102, 124, 195, 217
Alhambra, 508

Alicuri, 451
Alliers River, 533
Allmende, 575
Almeria, 567
Alpaca, 63-64, 575
Alpine race, 160, 164, 222, 360-361, 521, 597-598, 621-622; distribution of, 19, 39, 121, 176, 284, 543
Alps, as barriers, 4, 97, 524, 532, 535-537, 541-543; as boundaries, 82, 214, 222, 401, 402, 404; Bernese, 524, 543; Central, 532, 534-535, 537, 539; Cottine, 532; Eastern, 532; economic conditions in, 80, 207-208, 522, 557, 560, 563-566, 571-572, 578, 579, 581, 586, 589; ethnology of, 597-598; Glarner, 543; isolation within, 94, 595, 598, 600; Julian, 553; Maritime, 523, 532, 536, 547, 566; Monte Rosa, 543, 557; passes of, 4, 97, 523, 535, 542, 547-548; pastures of, 573-577; Pennine, 524, 536, 546; piedmont of, 70, 361, 482, 525, 527-528, 579; Rhætian, 525; transmontane routes of, 522, 528, 529, 533, 535-537, 548, 554; Western, 532, 542. See also Switzerland
Alsace, 189, 229, 600
Altai Mts., 489
Amalfi, 257
Amazon River, 37, 154, 337, 338, 341, 364, 610
Amber trade, 82, 97
Amboina, 452, 459
Americas, animals of the, 63-64; area of, 172, 199-200, 382, 392; Atlantic front of, 82, 149, 388, 390; European expansion to, 69, 74, 82, 106-107, 174, 189-190, 300-301; isolation of, 386-388, 390; origin of native race of, 102, 387-389, 396, 473; Pacific slope civilization of, 389, 395-396; structure of, 257, 266, 302-303, 394-396, 474, 476, 617. See also Indians, North, South and Central America
Amorgos, 440
Amsterdam, 13, 331
Amur River, 44, 229, 305, 344-345, 350, 370, 388, 410, 442
Amyrtæus, King, 372
Amysis, King, 377
Anadyr River, 344
Anahuac Plateau, 157, 395-396
Anatolia, 92
Anclam, 284
Andalusia, 86, 258, 476, 537, 619, 622
Andaman Islands, 159, 441, 442
Andermatt, 550; valley of, 534, 572
Andes, as barriers, 531, 535, 546, 611; intermontane basins of, 34, 37, 108, 160, 342, 396, 561; pastures of, 63-64, 485, 575; piedmont, 154, 338, 341, 561. See also Cordilleras
Andizhan, 529
Andorra Republic, 233, 592
Andros, 459
Angara River, 157
Angila, 163
Angles, 44, 48, 85, 273, 338, 370
Anglo-Saxons, in Britain, 48, 89, 134, 146, 184, 273, 422, 479; area of the, 114, 180, 189
Angra Pequena, 263
Animal life, 26, 63-64, 132, 208, 330-332, 411, 434, 441, 445-446, 465, 485, 609. See also Biogeography and Islands.
Annam, 30, 308
Ant-hills, 325, 481
Antilles Islands, density of population in, 448, 452, 453; European holdings in, 108, 426, 430-431, 438, 447-448, 616; location of, 129, 328; native races, 88, 178, 265, 438; trade of, 29, 47, 264, 269, 284, 618
Antioch, 145, 268, 283, 535
Antwerp, 149, 286, 351
Apaches, 116, 154, 237, 329
Apennine, Mts., 108, 401, 404, 527, 543, 562, 566, 579, 580, 595, 599; passes of, 91, 283, 527, 528; Peninsula, 398, 401-402, 404
Appalachian Mountain system, as barrier, 42, 44, 66, 130, 142, 190, 214, 286, 343, 349, 474, 540-541; passes of, 81, 535-536, 540-541, 544; piedmont, 70, 481, 530; Southern, 23, 45, 161, 237, 522, 599; southern Indians of, 89, 92, 154, 217, 502
Appenzell, 579, 594
Apuanians, 91
Aqua Sextiæ, 540
Aquileia, 283, 286, 553
Aquitanians, 361

Arabia, coasts of, 145, 309; deserts of, 63, 483, 507, 509, 511; peninsula of, 131, 145, 398-400, 402, 405-406
Arabian Sea, 254, 269, 302
Arabs, expansion of, 160, 185, 192, 215, 358, 386, 406, 492, 510, 545; maritime commercial expansion of, 6, 84, 164, 192-193, 196, 252-253, 265, 268-270, 276, 309, 425, 506. See also Bedouins, Saracens, Mohammedanism, and Nomads.
Aradus, 250
Aragon, 231, 429
Aral Sea, 374
Aravalli Hills, 6
Arawaks, 38, 100-101, 154; seaward expansion of, 178, 265, 303, 406, 438
Arawan, 153
Arcadia, 430, 581, 591, 595
Archangel, 207, 340, 479
Arctic Ocean, 143, 172, 210, 299, 308, 384
Arctic regions, coast settlements in, 88, 107, 152-154, 172-173, 248-249, 299, 302-303, 330, 332, 486, 624; fisheries in, 248-249, 330, 332; retarded development in, 65, 263, 398, 485-486, 505, 624-625, 633-634; sparse population, 152, 206-207, 486, 611, 624
Area, 168-202; and bio-geography, 168-172, 176, 178, 179, 209, 410-412; and differentiation, 112-113, 169-171, 173-175, 179, 193-194, 411-412, 421, 607; and growth, 16, 60, 148, 170-171, 175-176, 183-186, 188-189, 192, 219, 311; and language, 174-175, 180-181, 191; and location, 129-130, 193-194; and race diversity, 173-174; and varied geographic conditions, 112, 173, 174, 188-189, 607; decreasing, 92-93, 139, 175-176; extension of ethnic, cultural and political, 170, 183-193; index of civilization, 58-59, 150, 154, 170-171, 181-187, 197; law of increasing territorial, 76, 150, 177, 181, 184-187, 190, 192, 194, 197, 306, 311, 312, 432; large, early disadvantages of, 12, 14, 134, 183-185, 189, 190, 212-213, 307, 343-344, 477-479; large, later advantages of, 12, 21-22, 179-180, 184, 186-187, 189, 193-195, 306, 312, 444, 482; large, need of communication in, 44, 200, 342; large, permanence and strength in, 92-93, 114, 119, 139, 175-180, 183, 184, 187, 198, 253, 425; national estimates of, 124, 139, 195-201, 218-219, 252-253; of geographic origins, 122-124, 185; of oceans and enclosed seas, 284-285, 301-302, 310; small, early advantages of, 123, 134, 180, 182-183, 185-186, 191, 192, 310-311, 343-344; small, in primitive societies, 181-183, 185-186, 195, 197; small, weakness of, 43, 95, 114, 119, 155, 163, 170, 172, 175-180, 184, 195-197, 311, 411, 429, 591. See also Continents
Argentine, 65, 106, 275, 342, 351, 355, 441, 482, 483, 485, 509, 582, 633
Argolis, 397
Argols, 568, 578
Argonautic Expedition, 131
Argos, 250, 327, 430
Arianism, 27, 86, 117, 339
Aridity, 62-63, 65, 94, 152. See also Deserts and Steppes
Arikaras, 155, 297
Ariminum, 527
Ariovistus, 157, 540
Aristotle, 195-196, 430, 444, 459
Arizona, 102, 116, 329, 346, 489, 508
Arkansas, 65, 93; River, 155, 346, 530
Armenia, 99, 216, 273, 296, 349, 402, 542, 587
Artaxerxes, 372
Aru Islands, 428
Arve Valley, 550
Aryans, distribution of, 6, 46, 74, 159, 180, 402, 495, 506; in India, 6, 37, 46, 104, 142, 159, 180, 359, 402, 437, 526, 538, 596, 627; linguistic family of, 74, 124, 371, 526; origin of, 74, 122, 124, 383-384
Ascension Isle, 172, 411, 426, 432, 446
Asia, area and structure of, 112, 255, 384, 393-394, 474-475, 575; aridity and nomadism in, 7, 64, 109-110, 117, 142, 193, 500, 503, 510; articulations of, 131, 145,

255, 265-266, 398-400; early civilization in, 144, 145, 149, 330, 390; ethnology of, 103, 391; vicinal location of, 3, 14, 106-107, 110, 129, 131, 149, 381, 383-385
Asia Minor, 83, 188, 266, 273, 398, 588, 619; coasts of, 255, 257, 265, 476; Greeks in, 79, 146, 252, 273; location of, 122, 231, 405
Askelon, 507
Assam, 359
Assiniboine River, 98
Assyria, Median invasion of, 492, 588
Assyrians, invasion of Palestine, 91, 545
Asturias, 216, 233, 580, 622
Atbara River Arabs, 489, 500, 506
Athapascans, 100, 102, 116, 124, 137, 154, 195, 278
Athens, 22, 23, 111, 129, 250, 285, 450; sea power of, 13, 67, 149, 429
Atlantic, abyss, 384-387, 390, 396; front of Africa, 280, 309; front of Europe, 30, 82, 109, 149, 150, 300-301; Ocean, 30, 214, 254, 302, 340; scarcity of islands in, 387, 427; plain of United States, 66, 260, 343, 524; period of history, 13, 82, 149, 282-283, 310, 311, 386
Atlas Mts., 39, 113, 160, 212, 489, 580, 593, 618; piedmont oases of, 499, 501-502, 558-559
Atnas Indians, 137
Atrato River, 259
Attica, location of, 85, 110, 111, 216, 397, 402
Augrogne Valley, 600
Augsburg, 537, 544
Augustus Cæsar, 260, 440, 553
Austria, central location of, 144, 148; hinterland of the Adriatic, 30, 111, 258, 522; races in, 94, 115, 136, 186, 224
Australia, area of, 169, 172, 173, 199-201, 382, 390, 392, 398; deserts and steppes of, 182, 483, 526-527, 614; English expansion to, 20-22, 106, 112, 119, 174, 189, 616; flora and fauna of, 63, 76, 208, 411, 441, 485; isolation of, 144, 169, 173, 298, 380-382, 383, 385, 392, 433, 434; native race of, 4, 45, 55, 76, 77, 100, 144, 184, 382, 391, 411; native race declining, 172, 176, 178; rivers and railroads in, 355; structure of, 255, 474, 524
Austro-Hungary, 124, 141, 233, 258, 361. See also Austria and Hungary
Auvergne Plateau, 19, 35, 121, 522, 580, 582
Axholm, 372
Aymaras, 34, 101
Azof Sea, 255
Azores Islands, 381, 413, 432, 439, 446, 448
Aztecs, 78, 157, 374, 611. See also Mexico

Baalbec, 534
Bab-el-Mandeb, Strait of, 270, 305
Babemba, 368
Babylon, 22, 91, 296, 349, 492
Badon, 373
Bagdad, 153, 349, 507
Bagirmi, 373-374
Baguio, 532
Bahama Islands, 430, 448
Bahrein Islands, 431, 451, 507
Baku, 547
Bakuma, 368
Bakwiri, 39
Balearic Islands, 420, 429, 434
Bali, 208, 268, 452, 458, 569
Balkan Mts., 586
Balkan Peninsula, base of, 180, 402-404; races in, 26, 146, 180, 273, 399. See also Greece and Peloponnesus
Balkh, 529
Baltic Provinces of Russia, 155, 181, 192, 224, 230
Baltic Sea, as enclosed basin, 13 14, 136, 251, 282 283, 302, 304, 314, 336, 347, 374; coasts of, 14, 143, 246 247, 260, 262, 271 272, 310 311, 429; location of, 109, 308; plain of, 92, 112, 478 480; trade of, 13 14, 42, 97, 130, 244, 250, 284, 331, 339-340, 348, 426
Baltimore, 246
Baltistan, 532, 585 587
Baluchi mountain tribes, 525, 595
Baluchistan, 359, 503, 508, 523, 536
Bamboo grass, 64, 576
Banda Islands, 278, 441, 459
Banda Sea, 428
Bangkok, 308, 322 323, 347
Banjarmasin, 321

Banks Islands, 456
Bantu peoples, 7, 39, 104, 559, 584; speech, 118, 123, 276
Baranof Island, 29
Barava, 157, 269
Barbadoes, 448, 452, 453
Barbary Coast, 104, 622
Barca, 140, 274, 455
Barcelona, 257, 284, 303, 420, 528, 547
Barmaz, 578
Barotse, 36, 106, 325
Barriers, effect of geographic, 3-5, 81. See also Deserts, Mountains, Swamps, and Seas
Barrow men, 75, 435
Barth, Heinrich, 216, 491, 497, 502-503
Bashkirs, 226
Basilicata, mountains of, 39, 580
Basques, 258, 582, 600
Basses-Alps, 564, 582
Basutoland, 141, 580
Batavia, island of, 85, 116, 357, 372
Bathurst, 370
Batoka, 368
Baton Rouge District, 229
Battaks, 569, 580 581
Bavaria, 30, 121, 373, 479, 539, 621
Bay of Biscay, 314, 532, 547
Cambay, 104
Carthage, 250
Lübeck, 260
Naples, 265
Bayonne, 528, 547
Bayou Teche, 155
Beaupré, 364
Bechuanaland, 38, 55, 137, 500
Bedouins, nomads, 489, 490, 493, 494, 497, 503-505, 507, 509, 511, 615-616; sedentary, 514. See also Arabians.
Beira, 263
Beirut, 548
Belgæ, 85, 116, 131, 361
Belgium, dense population of, 65, 447, 477; North Sea location, 332, 351; railroads of, 355; small state, 177, 186
Bengal, 228, 359
Bengali, 526, 619
Benguela, 207, 278; Current, 613
Benguet Province, 532
Beni Jafre, 235
Berbers, mountaineers, 39, 113, 160, 559; nomads, 113, 511, 615-616; North African location, 28, 110, 132, 272, 418. See also Kabyles and Tuaregs
Bergamo, 528, 581
Bergen, 304
Bering Sea, enclosed basin, 29, 173, 303-305, 308, 340, 344, 381, 385, 400, 439, 473, 505
Bering Strait, 102, 123, 173, 305, 388, 424, 439
Bering, Vitus, 305
Bermuda Islands, 43, 430, 448, 450
Bern, canton, 527; city, 369, 592
Berwick, 547
Berytus, 250
Besançon, 369
Bessarabia, 224, 350
Bhils, 159, 587, 596
Bhutan, 228, 233, 568, 575
Bhutias, 531-532, 553, 568
Bidarkas, 29, 248, 299
Bihenas, 278
Bilbao, 547
Bilma, 152, 505
Biloxi Indians, 155
Binungku, 459
Bio-geography, 68, 76, 159, 168-169, 172-174, 178-179, 206, 208, 384 385, 391, 405, 409-412, 438-439, 441-442, 445-446, 473-474, 558, 608
Birmingham (Ala.), 629
Bismarck Islands, 444, 448
Bissagos Islands, 153
Bituriges, tribe, 361
Bizerta, 250
Black Belt (Southern States), 114, 161, 619
Black Forest Mountains, 39, 111, 536, 566, 579
Black Lands, see Ukraine
Black Sea, 14, 313, 336; and the Caucasus Mts., 528, 532, 538, 547; big rivers of, 30, 97, 139, 140, 339, 348, 353; Greek expansion to, 67-68, 187, 302, 331
Bloemfontein, 199
Bluegrass country, 113
Blue Ridge Mts., 42, 535
Blumenbach's system, 391
Boehmer Wald, 224
Bœotia, 110
Boers, language of, 116, 175; pastoral life of, 48, 93, 135, 232, 488, 490, 497, 510, 623
Bogota, 259
Bohemia, 136, 221, 360, 397, 600
Bolabola Island, 444

Bolan Pass, 538
Bolivia, central location of, 138, 143, 163; and Chile boundary, 219-220; loss of territory, 163, 231; Plateau, 342, 373, 395, 476, 561, 610
Bologna, 99, 527-528
Bombay, 426, 528
Bontoc Province, 578
Boone, Daniel, 42
Bordeaux, 246, 347
Boreyda, 153
Borneo, 65, 159, 321, 381-382, 433, 443, 452; Chinese in, 30, 104, 268, 307
Bornu, 140, 152, 362, 373-374, 492, 511
Borzil Pass, 575
Bosnia, 177
Bosporus, 52, 129, 130, 180, 262, 331, 337
Boston, 175
Bostra, 507
Botany Bay, 440
Botokudos tribe, 38
Bou-bou tribe, 481
Boundaries, as border zones, 204-206, 208, 220-230; as limits of motion, 74, 208-210, 220; barrier or natural, 43-44, 52, 82, 97, 133-135, 140, 163, 172-173, 182, 183, 192, 212-216, 224, 357-360, 370, 478, 542, 593; breadth of border zone, 208, 210-212, 215, 344; colonial frontiers, 148, 210-213, 226-228, 232, 345, 530-531; colonial, lawless elements in, 235-236; colonial, spirit of, 150, 199, 231-234; common border districts, 215, 217, 219-220, 236; cultural border zones, 116-117, 135, 136, 223-228, 230, 525-526; defection on political, 230-234, 236, 258; defenses of, 140, 233-235, 492, 498; ethnic border zones, 111-117, 135, 136, 155-157, 221-224, 226-228, 230, 237-238, 391; index of growth and decline, 157, 210-213; linguistic, 222, 226-229, 360-361, 525-526; of growth, 76-77, 89, 162-163, 209-210, 224, 345; of decline, 83, 92-93, 163, 210, 216, 230; of the habitable area, 206-208, 214, 552, 575, 607, 610; oscillations of, 206-207, 209-211, 215, 219, 221, 229; piedmont, 113, 525-526, 530-531, 596, 599; political, 192, 215, 216, 220, 221, 224, 229, 525; primitive, 54, 57-58, 89-90, 183, 209, 215-219; refugees across, 93-94, 222, 236-238; relation of ethnic and cultural, 83, 227-229; relation of ethnic and political, 190-192, 229-230, 362, 543; rivers as, 360-363; sea as absolute, 139, 141, 214-215, 275, 418, 421, 430, 434; states of the border, 218, 233-236; tariff, 220-221, 259; wars of the, 194, 233, 234, 369, 428, 491
Bouton, 459
Bourtanger Moor, 215, 370
Bow and arrow, distribution of, 445-446
Brahmanism, 599
Brahmaputra River, 180, 356; Valley, 357, 526
Brandenburg, 60
Brazil, 93, 220, 231, 272, 342, 355, 444, 454, 617; European elements in, 106, 153, 154, 273, 277, 310, 627-628; native Indians of, 38, 56, 100-101, 338; negroes in, 91, 273
Bremen, 150, 245-247, 341, 347
Bremerhaven, 246-247
Brenner Pass, 222, 369, 474, 522, 523, 548; route, 258, 528, 537, 539, 542, 544, 592
Breslau, 342
Briare Canal, 354
Brinton, D. G., 79
Briochov Islands, 207
Bristol, 13
British Columbia, 30, 77, 531; coast Indians of, 15, 36, 57, 137, 163, 261-262, 299, 302, 330, 388-389, 395, 417. See also Haidas, Tlingits and Tsimsheans
British Empire, area and distribution of, 189, 193, 195, 312, 413, 445
British Guiana, 106, 626
British Isles, race elements in, 115, 164, 176, 187, 296, 447; uniformity of skull form in, 421-422. See also Great Britain and Ireland
Brittany, an Atlantic peninsula, 149, 269, 397-398, 405-406, 480, 619; maritime development of, 187, 240, 264, 269; soil of, 19, 279, 480; Saxons in, 74, 273, 479

Broach, 6
Bronze Age, 415-416, 435
Bruges, 287, 304, 342
Brunei, 321
Bryce, James, 199
Bubastis, 99
Buckle, Henry, 18, 629-630
Buddhism, 41; differentiated forms of, 175, 228, 306; in Japan, 175, 306, 414; in the Asiatic highlands, 27, 100, 112, 228, 511, 514, 568, 572, 576, 583, 585, 588, 600
Buduma Islanders, 296, 368-369, 462
Buenos Ayres, 347, 623
Buffaloes, 35, 63
Bugis, 424
Bug River, 224
Bukhara, 163, 491, 505-507, 529, 542
Bulgarians, 45, 74, 85, 109, 361, 402
Burckhardt, J. L., 504, 509
Burgundian Gate, 539
Burgundians, 27, 339, 540
Burgundy, 139, 523
Buriats, 49
Burma, 320, 534
Buru, 459
Bush Fulani, 511
Bushmen, 35, 55, 118, 158, 266, 297-298, 497, 504
Busrah, 349, 507
Byrd's Fort, 370
Byzantium, 252, 348

Cabot, John, 150, 301
Cabral, 406
Caddoes, 155
Cadiz, 13, 149, 246
Cæsar, Julius, 82, 90, 216, 249, 357, 361, 369, 522, 533, 540, 553
Cairo, 175, 358
Caithness, 304, 397
Calabar, Old, 262, 277
Calabria, 39
Calchedon, 252
Calcutta, 347, 557
California, 4-5, 29, 267, 280, 545; early routes to, 340, 530, 545
Caliphate, 185, 507, 512. See also Saracens
Calmanianes, 420
Calvinism, 587
Cambodia, 308
Cambridge (England), 245, 307
Cameron, V. L., 320, 570
Campania, 588
Campos, 38
Canaan, 47, 58, 494, 496, 504, 505, 511; native religion of, 514, 599
Canada, area of, 130, 200, 342; climatic effects in, 10, 47, 343-344, 625, 632-634; emigrants from, in the United States, 95, 221-222; French in early, 52, 92, 98, 111, 114, 130, 154, 157, 163-164, 187, 368, 430; fur trade in, 5, 10, 47, 97, 135, 187, 212, 336, 343, 344, 540, 554; Indians of, 77-78, 87, 100, 102, 114, 124, 178; river highways of French expansion in, 44, 336, 342-343, 348-349
Canadian River, 346, 530
Canals, 246-247, 352-354
Canary Islands, 88, 129, 381, 387, 413, 426, 428, 432, 438, 441, 442, 446, 448, 618; primitive inhabitants of, 411, 418, 419, 434, 462. See also Gauuches
Cannibalism, 67, 461, 465
Cantabrian Mts., 86, 580, 586, 622
Canton, China, 269, 322, 347, 367, 621
Cantonal government, 590, 592-594
Cape Ann, 253
Bojador, 250
Breton Island, 442
Carmel, 266, 268
Cod, 253, 331
Colony, 87, 114, 116, 267, 369, 497, 622-623, 626
Comorin, 254
Farewell, 249
Finisterre, 314
Guadafui, 265
Henlopen, 253
Horn, 426
Malia, 249, 302
Nao, 537
Non, 250
of Good Hope, 17-18, 265, 310
Prince of Wales, 388
Race, 331
Capes, in early navigation and colonization, 249-253
Cape St. Roque, 406
St. Vincent, 249
Town, 199, 263; to Cairo Railroad, 199
Verde Islands, 153, 422, 432, 448
Capri, 453, 457, 460
Capua, 369, 588

Caravan routes, 97, 152-153, 346, 491-492, 506, 511, 541
Carians, 274, 383
Caribbean Sea, 259, 303, 313, 315, 336,.347, 426
Caribs, 100-101; expansion to Antilles, 88, 100, 178, 265, 303, 338, 406, 438; river life and expansion of, 265, 338, 364
Carical, 165
Carinthia, 565
Caroline Islands, 448
Carpathian Mts., 4, 478, 532, 565
Carpini, John de, 57-58, 494
Carthage, location of, 250, 284; maritime trade of, 96, 148, 272, 314, 428; Spanish dominion of, 132, 151, 405
Cartier, Jacques, 187
Cascade Range, 70, 95
Casco Bay, 253
Caspian Sea, 259, 338-339, 348, 353, 374, 493, 528, 538, 541, 546-547; arid plains of, 7, 26, 63, 500
Cassala, 490, 500
Castile, 216, 231; people of, 258, 619
Castleford, 245
Catalonia, 420; people of, 258, 420
Catawba Indians, 93
Catskill Mts., 533
Cattle-lifting, 233-235, 587
Caucasus Mts., as barrier, 535, 538-539, 541; ethnology of, 94, 235, 595, 597; location of, 94, 254, 547; routes across, 528, 546-547, 554; Russian conquest of, 523, 526, 554, 589-590, 598; tribes of, 235, 579, 587, 590-592
Cebu, 420
Celebes, 159, 208, 442, 459; Sea, 307
Celibacy, 514, 582-584
Celts, geographical distribution of, 46, 85, 86, 164, 180, 184, 304, 371, 387, 418, 478; survival of language of, 164, 404, 421
Cenchrae, 250
Central Africa, 65, 118, 123, 155, 158
Central America, 65, 78, 355, 546; early civilization of, 102, 182, 329, 392, 395
Central Asia, arid highlands of, 109, 227, 346, 483, 531-532, 558, 575; nomads of, 46, 92, 109, 142, 144, 228, 475, 489, 510, 511, 514, 541, 558, 575; nomadic conquests in lowlands, 46, 109, 402-403, 475; pass routes of, 528-529, 539, 541, 548, 551-552
Central Europe, 4, 65, 110, 135, 422, 532; natural routes from the Mediterranean into, 44-45, 283, 532, 540
Central Plateau of France, 353, 533, 562
Ceos, 464-465
Ceram, 159, 321, 424, 459
Cercina Island, 440
Ceuta, 132
Ceylon, 175, 415, 600; insular dependency of India, 265, 381, 398, 428; location for maritime trade, 108, 154, 267, 284, 425, 428; race elements in, 104, 425-426, 437
Chain Island, 449
Chalcidice, 252, 429, 459
Champlain, Samuel de, 343
Chandarnagar, 165
Channel Isles, 264, 418, 419, 428-429, 447-448
Charkar Mongols, 234-235
Charlemagne, 545
Chatot Indians, 218
Chattanooga, 535
Chatti Germans, 116-117
Chaudière River, 366
Checks to population, 67, 196, 461-465, 582-586
Chengtu plain, 327, 530
Cherbourg, 149
Cherokee Indians, 65, 195, 535; area and location of, 92-93, 116, 154, 217, 562
Chersonesus, 252
Cheruscí tribe, 216
Chesapeake Bay, 77, 199, 260, 286
Cheviot Hills, 547
Chiavenna, 550
Chicago, 247, 375
Chickasaw Indians, 217, 562; Trail, 349
Chilas tribe, 587, 594
Chilcat Indians, 137, 278, 531
Chile, 106, 163, 219-220, 410, 476; fiord coasts and nautical development in, 15, 141, 261-262, 302, 303
Chili Province, 110, 581
Chilkoot Pass, 278, 531, 544
China, area of, 194, 342; civilization of, 137, 326-327, 415, 509; density of population in, 60,

65, 67, 110, 184, 447, 458, 477, 548, 568-569; ethnic borders of, 226-228; ethnic survivals in, 598-599; inland waterways of, 322, 341-343, 352-355; location of, 137, 213, 217, 306; nomad frontier of, 110, 112, 136, 234, 475, 495-496, 499, 514; Pacific coast of, 30, 143, 145, 267, 366, 626; trade of, 82, 187, 269, 276, 285, 530-531, 541
China Sea, 282, 307-308
Chinese, area of, 119, 180; emigration to Pacific lands, 30, 267-268, 307-308; expansion, 60, 103-104, 110, 189, 226-227, 423, 425, 499, 628
Chinook Indians and language, 277
Chisone Valley, 222, 600
Chitral district, 589
Choctaws, 155, 217-218
Chonos Islands, 465
Christiania, 218, 549
Christianity, and the Mediterranean, 196, 515; differentiation in, 117, 122
Chukches, coast tribes, 174, 249, 304-305, 388, 424; reindeer tribes, 63, 486, 505
Chukchian Peninsula, 304, 405
Chumbi Valley, 552
Cilicia, 459
Cimarron River, 346
Cimbri migration, 4, 77, 85, 522, 539, 542
Cinque Ports, 283
Circassians, 587, 590
Cities, coast, 241 246, 250-252; pass, 551; piedmont, 527-530, 547; river, 341-342; seaport, 286, 347, 547 548
City states, 183, 195 196, 591-592, 595
Civilization, geographical distribution of earliest, 328 330, 635; land bond in, 53, 59, 65, 69 71, 82 83; expansion of, 119, 183
Civil War, English, 52; of the United States, 23, 161, 176, 535, 557. See also Slavery
Clarke's Island, 253
Clark, George Rogers, 370
Climate, and agriculture, 44, 63, 65, 328 330, 435, 418, 615, 628, 632 633; and differentiation, 112, 116, 610, 611, 619 622; and immigration, 619 620; and industries, 507 508, 629, 632; and race hybridization, 107, 120, 135, 212, 628; and race temperament, 619-622; and relief, 112-113, 279, 477, 521, 542-544, 558, 573, 616-617; blanket theories of, 18, 20, 608, 622; contrasted, 616, 618-619, 622, 629; direct and indirect effects of, 36-40, 608, 609-610, 620, 625; heat belts of, 617-618, 623-624, 633-634; importance of, 7-10, 607-608, 610-611; monotonous, 622-624, 626, 629; retarding effect of excessively cold, 10, 14, 15, 47, 63, 212-213, 308, 343-344, 632-634. See also Rainfall, Seasons, Tropics, Frigid and Temperate Zones
Clyde River, 149, 247, 283
Coasts, as boundary zones, 204-205, 242-247, 250, 260, 271, 336-337; accessibility from hinterland, 142, 256-257, 339-341, 347; accessibility from sea, 15, 16, 18, 254-255, 256-257, 259-263, 266, 283-284, 297, 301, 340-341, 397, 399; and food supply, 56-57, 152, 248-249, 269-270, 330, 559-560; conditions for great maritime development, 36, 48. 71, 142, 162, 248 249, 257 262, 268 271, 282-284; decline of, 284 286; desert, 267, 302, 310; differentiated people of inland and, 258, 271, 279-281, 321; early cosmopolitan civilization of, 84, 146, 259, 279-281; ethnic amalgamation in, 145, 274-276, 279, 303, 424-426; ethnic contrast of hinterland and, 145, 271-274, 308, 433; evolution of seaports on, 246-247, 250, 263-264, 282-283, 286; expansion along, 107, 138, 338, 389, 394; importance of, 143-144, 163, 242-244; inner edge of, 241 247, 252 253, 347; interplay of forces of land and sea in, 71, 248 249, 254-255, 257, 260 263, 277, 286 287, 330-331; islands off, 264-266, 307; *Lingua franca* of, 276 277; location of, 268, 280, 282-283; maritime colonization on, 146, 157, 196-197, 245 246, 250 253, 273, 433, 454 455; middleman trade of, 137, 139, 196, 252, 270, 277-279, 284, 309; outer edge of, 3, 196-

197, 246-253, 274, 301-302, 320-322; previous habitat of people of, 266-267; ratio of area to length of, 255-256, 399-400
Cochin China, 308
Coire, 535
Colberg, 284
Colchester, 245, 264
Col de Fenêtre, 550
la Perche, 547
la Seigne, 550
Colne River swamps, 370
Cologne, 342
Colombia, United States of, 91, 188, 259, 355, 476
Colombo, 425
Colonials, differentiation of, 20-22, 120, 124, 437; mind of, 124, 189-190, 199-201, 232
Colonization, and commerce, 96, 252, 269; and periphery, 145-146, 162; coasts in, 146, 245-246, 250-253, 273, 433, 454-455; conditions for, 15, 459-460; internal, 106, 110, 192, 307, 460; military, 91-92; of European nations, 122, 145, 157, 189, 198-199; tropical, 37, 106-107, 114, 119, 120, 628. See also Historical Movement
Colorado River, 352; Cañon, 524
Columbia River, 199, 262-263, 277, 394
Columbus, Christopher, 118, 301, 336-337, 390
Comanche Indians, 55, 90
Comanians, 409
Commander Islands, 388
Commerce, expansion of, 98, 100, 104, 107, 123, 187
Communes, 590, 592-594
Comores Islands, 451
Congo River, 157, 276, 320, 368; riparian villages of, 56, 182, 297, 364
Connaught, 361, 404
Connecticut River settlements, 357, 366
Conservancy Board, 352
Constantinople, 17, 76, 111, 144, 149, 216, 276, 339, 450, 509, 614
Continents, area of the, 172, 254-255, 382-383, 391-392, 398; articulations of, 131, 144-145, 254-255, 302, 396-398; classification of islands and, 172, 333, 381-382; convergence and ethnic kinship of, 304-305, 380-381, 384-385, 392; extremities of, 287, 380-381, 385, 392-393; races and the, 131, 390-391; relief and structure of, 341, 393-396, 474-475; zonal location of the, 392-393, 613-614, 622. For articulations, see also Peninsulas
Cook, Captain James, 299, 337, 444, 455, 464, 465
Cook's Inlet, 137, 205, 278, 337
Coorgs, 584
Coosa River, 217
Copernicus, 79
Copper River, 137, 278
Corcyra, 265, 459
Cordilleras, as barrier, 394, 396, 476, 546; civilization of native states of, 329, 617. See also Andes and Rocky Mts.
Corfu, 427, 447, 453
Corinth, 13, 250; Canal, 409; Gulf of, 250
Cornice Road, 536
Corn Laws, 52
Cornwall Peninsula, 397-398, 403-406, 421
Coromandel Coast, 260, 284
Corsica, 35, 264, 404, 422, 428, 440, 443, 446, 447
Cossacks, as fur traders, 10, 29; semi-nomadic border police, 7, 234-237, 368, 488, 497
Côte, 364-366
Cotentin Peninsula, 397
Courland, 272, 371, 400
Cracow, 342
Crannogs, 319
Creek Indians, 93, 217-218, 562
Cremona, 326
Crete, colonies of, 123, 274, 445, 459; early and differentiated civilization of, 12, 214, 415-416, 436-437, 465; later retardation of, 430, 443; sea power of, 417, 445; thalassic island, 131, 191, 382, 427
Crimea, 234, 235, 237, 274, 303, 312, 397-398, 400, 409, 478, 493, 547, 572
Croatians, 136
Cromwell, Oliver, 373
Crow Indians, 98
Crusades, 69, 99, **111, 149, 192,** 303, 427, 546

Cuba, 188, 256, 429-431, 452; native race of, 178, 303, 406, 438
Cumberland Gap, 44, 474, 544
Cumberland Plateau, 23, 113, 534
Cumberland River settlements, 228, 343-344, 349
Curaçao, 453
Cuttyhunk Island, 253
Cuxhaven, 247
Cuyos, 420
Cyclades Islands, 265, 399, 416, 440, 443, 446, 447
Cyprus, 154, 264, 427, 431
Cyrene, 454
Czechs, 224, 360

Dacia, 86, 92
Daghestan, 579
Dall, W. H., 389, 395
Dalmatia, coast of, 257-258, 261-262
Damaon, 165
Damara tribes, 41, 298, 498, 583
Damascus, 505, 507, 535
Danes, area of, 180-181, 183; in Britain, 134, 372, 422; maritime colonies of, 249, 300-301, 426
Dantzig, 246
Danube River, as a boundary, 83, 85, 216, 230, 361-362, 539, 553; mouth of, 130, 350-352; valley, 7, 30, 41, 258, 493, 533; valley highway, 4-5, 27, 44-45, 339, 482, 532; valley, race elements in, 85-86, 117, 136, 186, 360-361, 391; valley states, 139, 177, 186
Dardanelles, 337
Darel Valley, 594
Darfur, 140, 218, 526, 571
Darjeeling, 523, 531-532, 551, 552, 557
Darwin, Charles, 33-35, 115, 169-170, 174, 179, 411
Deccan, 104, 391, 398, 402, 403, 538, 610, 616
Delagoa Bay, 140, 263
Delaware Bay, 253, 260, 286
Delaware Indians, 70, 77, 87, 89, 93, 116
Delaware River, 5, 77, 108, 253, 369
Delhi, 6, 509
Delos, 425, 426, 453; Confederacy of, 429
Delphi, 111
Denmark, 257, 262, 311, 314, 351, 403, 445, 447. See also Jutland and Zealand
Denver, 528
Derge, 578, 583
Deserts, 483-515; as barriers, 43-44, 215, 360, 400; climatic control in, 607, 614; of the Arctic regions, 485-486, 560. See also Nomads, Steppes and Oases
Differentiation, and area, 112, 122-123, 161, 169-170, 382, 421; and natural conditions, 33-34; as effect of dispersal, 77-78, 115-116; effect of contrasted environments upon, 137, 160-161, 382, 393, 478; effect of isolation upon, 21-22, 76, 115, 117-118, 121, 125, 133-134, 169-174, 293, 303, 333, 380, 385, 393, 404-405, 411-412, 414, 416, 595-596, 598; effect of relief upon, 112-113, 160-161, 393, 477; natural checks to, 119-121, 393; relation of different soils to, 112, 161, 480 481, 525. See also Climate
Dinaric Alps, 258, 300
Dinka negroes, 41, 325
Diodorus Siculus, 325
Diomede Islands, 305, 388, 424
Dioscoridis, 425
Dismal Swamp, 371
Dissentis, 598
Ditmarscher, 372
Diu Island, 165, 431
Dnieper River, 234, 353, 371; line of Russian expansion, 140, 162, 339, 348; Tartars in valley of, 7, 58, 368, 490
Dniester River, 224
Dogger Bank, 332
Dollart, 324
Don River, 58, 162, 234-235, 490, 493
Doncaster, 245
Dora Baltea Valley, 222, 356, 536, 548, 550, 553
Dora Riparia Valley, 222, 536
Dordrecht, 246
Dorian invasion, 78-79
Drake, Sir Francis, 406
Draper, John W., 328-329
Drave River, 85, 186, 361
Dravidians, 104, 403, 526, 598
Drummond Island, 448
Dry Tortugas, 441
Dualla tribe, 277-278, 369
Duff Island, 299

Duluth, 375
Duna River, 348, 353, 371
Duoro River, 216
Durance River, 536
Dutch, in America, 5, 107-108, 157, 375; in the East Indies, 96, 107, 119, 265, 285; in South Africa, 18, 48, 106, 119; maritime expansion of, 28-29, 123, 271, 300-301, 310; national spirit of, 180, 183. See also Boers, and Holland
Dwina River, 140, 162, 340, 348, 353
Dyaks, 65
Dyrrachium, 258

Earth, area of, 168; modified by man, 120; unity of, 30, 68, 121, 171-172
East Africa, Arab expansion in, 84, 146, 192-193, 252-253, 265, 268-270, 275, 276; British in, 431; Portuguese in, 157, 196, 265, 269; trading stations on coast of, 164, 265, 309-310
East Cape, 255, 305, 388
Easter Isle, 300, 389, 417, 440, 455, 459, 462, 465
Eastern Empire, 117, 216
East Indies, see Sunda Islands
Eboe tribes, 276-277
Ebro River, 362
Echidnades Islands, 410
Ecuador, 30, 440, 476, 561
Effects of environment, direct and indirect, 18-20, 22, 41-42, 46, 161, 438, 494, 608-609; physical, 1, 33-40, 46, 119-120, 279, 299, 504, 607-608, 626; psychical, 1, 18-20, 22-23, 40, 41-43, 46, 195, 199-201, 299-300, 512, 514, 582, 585; social and economic, 38, 43, 46, 228, 327, 585, 632
Egypt, 75, 99, 122, 188, 415-416; civilization of, 7, 22-23, 328-329, 358, 393; coasts of, 266-267, 281, 352; desert trade of, 505-507; expansion into Syria, 132, 152, 477, 545; nomad conquests of, 58, 104, 176, 495; naturally defined location of, 12, 144, 197, 213-214, 359-360; vicinal location of, 151-152, 283, 400. See also Nile Valley
Ehrenreich, Paul, 34, 38
Eider River, 403
Ekaterina Harbor, 141
Elaæ, 250
Elamites, 402-403
Elba Isle, 264, 440, 441, 457
Elbe River, estuary, 185, 246-247, 340, 351; lowlands, 185, 191, 324, 371
Elburz piedmont road, 528
El Golea, 152
El Hasa, 431, 498, 505
Elis, 110
Elizabeth, Queen, 332, 406
Ellice Islands 77, 463
Elliot Islands, 428
Emden-Dortmund Canal, 351
Emerson, Ralph Waldo, 199, 413, 415
Emigration, 93-96, 123; from islands, 459-461; from mountains, 579-582
Endogamy, in mountains, 587
Engadine, 113, 359, 534, 593
England, area of, 179, 420; coast of, 260, 262, 473; colonies of, 16-18, 37, 51, 96, 123, 145, 146, 154, 157, 198, 343, 375, 458-459; conditions for maritime development in, 15, 28, 70, 294-295, 300-301, 314-315, 461; commerce of, 67, 96, 263-264, 458-459; distribution of population in, 65, 477, 527, 564; early outskirt location of, 2-3, 12, 13, 149, 150; insular location of, 6, 133, 134, 182, 420, 437-439; its leadership of European civilization, 414-415, 465; races and ethnic elements, 74, 75, 83, 93, 146, 176, 184, 237, 275, 421-422; relief of, 52, 475, 478, 480; sea route to India from, 154, 427; vicinal location of, 134, 137, 397
English Channel, 150, 214, 259, 286, 296, 314, 421, 473
English people, differentiation of, 413, 418; differentiation of language of, 175, 420; expansion of, 44, 66, 114, 185, 189, 193, 198-199, 211-212, 265, 271, 310, 343, 432, 498
Epaminondas, 591
Epidamnos, 459
Epirus, 265, 535
Equatorial Current, 30, 380
Equatorial Lakes, 297, 406
Erie Canal, 5, 540
Erie Indians, 89
Eritrea, 611

Erz Mts., 224, 360, 527, 536, 579
Eskimos, coast settlements of, 152, 154, 248, 249, 299, 304, 330, 624; distribution of, 88, 107, 304, 387, 422, 424; influence of climate upon civilization of, 10, 41, 58, 63, 611, 624-625; race of, 76, 123, 173, 382, 385, 387, 388, 395, 419
Esk River, 236
Essartage, 182
Essequibo River, 320
Essex, 74
Estland, 272, 400
Etah, 207, 624
Ethiopia, 99, 358, 372
Ethnology, and geography, 121-122
Etruscans, 97, 180, 264
Euboea, 381, 401
Euphrates River, as highway, 296, 337, 345, 349; plains, 152, 230, 476; nomad invasion of, 7, 489, 492. See also Mesopotamia
Eurasia, area of, 169-170, 172, 179, 383; Arctic, 172, 485-486; coastline, 400; location of, 383-385
Europe, Asiatic side of, 129, 148, 254, 348; Atlantic front of, 30, 82, 99, 149, 282 283, 301, 398; climate of, 109, 613-614, 618, 620-621; location of, 149, 150, 380-381, 383; peripheral articulations of, 131, 144, 254, 255, 258, 264, 394, 399, 405; races of, 74, 76, 104, 110, 112, 121, 477; varied structure and relief of, 117, 174, 199-200, 311, 339, 383, 389, 390, 394, 474-475, 478, 539
Europeans, expansion, 82, 106-107, 145, 151, 174, 311; trade with the Orient, 82, 270, 309 310, 616
Everglades, 371
Evolution, of geographic influences, 24-25, 282-283, 285, 433 434, 436, 444, 561-562; of geographic relations, 12-14, 67-69, 76, 78, 149 150, 282 283, 301-302, 311 313
Expansion, commercial and political, 65 68; commercial and ethnic, 196 197; ethnic and political, 183 187, 190-192; excessive, 131, 212 213, 343 344; geographic conditions for, 139, 343 345, 482; geographic marks of, 83, 139, 161 163, 165, 208-212; in new and old countries, 189-190, 198-200

Falkland Islands, 35, 44, 426-427
Faroe Islands, 88, 137, 264, 298, 387, 420, 432, 443, 448
Farralone Islands, 29
Farsistan, 507
Farther India, Asiatic peninsula, 131, 398-400; Chinese in, 307-308; intercontinental location of, 405; river valleys of, 259, 534; river-boat people, 322-323
Fayal, 381
Fenland of England, 245; reclamation of, 107-108, 286, 324-325; refuges and strongholds in, 370-372
Fernando Noronha Isle, 153, 440
Fernando Po Island, 441
Fern Pass, 537
Ferro, 419
Feuds, in mountains and deserts, 113, 237, 570, 591-592
Fez, 506
Fezzan, 502
Fiesch, 566
Fiji Islands, 282. 382, 446; effects of small, insular area, 455-456, 460, 463-464; government of, 6, 56, 444; races in, 77. 165, 391
Finisterre Province, 279
Finland, 400; maritime development of, 15, 71, 144, 262; Russian occupation of, 119, 177, 181, 189; Swedes in coasts of, 225, 272, 304
Finmarken Province, 152-153, 330, 624
Finns, in Russia, 77, 119, 159, 165, 224-226, 348; in Scandinavia, 119, 218
Fiord coasts, 261-262
Firenze River, 356-357
Firth of Forth, 273, 370
Tay, 304
Fisheries, and maritime expansion, 187, 330 331, 406, 618; and seamanship, 295, 299, 331-332; in Arctic economy and settlement, 152, 207, 248 249, 299, 330, 486, 624 625; in small or sterile lands, 15, 261, 264, 269, 305, 449-450, 455, 456; river, 108, 322
Fisher tribes, 56 57
Fiume, 14, 140, 258
Flanders, 284, 338

Flemish refugees, 88, 275
Floating gardens, 320, 322, 569
Florence, 99
Flores, 159, 208, 446
Florida, 93, 111, 371, 406, 618; Spanish, 142, 229, 238, 256
Föhr Isle, 461
Fontainebleau, 354
Food-quest, and migration, 76, 80, 132, 389
Food supply, advance from natural to artificial basis of, 60-61; in Arctic regions, 299, 624-625; in deserts and steppes, 490-492, 503-504; in mountains, 37, 563-565, 579, 586; physical effects of scant, 34-35, 39
Foota Jallon Mts., 325
Forests, as barriers, 81-83, 160, 476, 483, 521, 561; as boundaries, 216, 218, 370; hunting tribes of, 117, 158, 609, 614, 625
Formosa, 159, 308, 381, 442; ethnic elements in, 418, 423, 428, 439, 460, 599
Forster, George, 455
Forts, frontier, 140, 530
Fox River, 98, 364
France, coasts and maritime development of, 16, 256, 294, 375; colonial policy of, 16, 51, 198-199, 294; distribution of population in, 19-20, 65, 477, 564; ethnic elements in, 46, 74, 89, 115, 187, 338, 422; inland waterways of, 338, 342, 353-354; location of, 133, 141, 149, 151, 294; natural boundaries of, 214, 256, 535, 542; political expansion of in Europe, 6, 185-186, 198-199, 351, 482; relief of, 19-20, 113, 259, 353, 480, 525, 533, 562. See also Gaul
Franconia, 19-20, 124, 579
Freeman, E. A., 151, 164
French, expansion of, in North America, 44, 134, 190, 214, 338, 342-343, 348-349, 350. See also Canada; expansion in Africa, 157, 212 498, 511; in Asia, 165; language, dialects of, 175, 360, 419, 598
French Congo, 481
Frenssen, G., 112
Friendly Islands. See Tonga
Friesland, 215, 371-372
Frigid Zone, 100, 611, 623-624, 633-634. See also Arctic
Frioulians, 222, 581
Frisches Haff, 246
Frisian Islands, 417, 420, 461
Frisians, 85, 480
Frontiers, see Boundaries
Fuegians, 298, 382. See also Tierra del Fuego
Fuerteventura, 419, 462
Fulbe, 115, 135, 492, 496
Furca Pass, 534-535
Fur trade, and expansion, 29, 97, 98, 134, 187, 211-212, 343-344; and river highways, 47, 342-344, 346, 364-366, 540; climatic factors in, 10, 47, 212-213, 343-344, 618-619; economy of the, 47, 211-212, 344; in Alaska, 29, 278; in Siberia, 10, 29, 44, 344; in United States, 211, 530. See also Canada
Fusan, 306, 405
Futuma Island, 448

Galapagos Islands, 440
Galicia, 74, 86, 258, 580
Galilee hills, 545
Galla nomads, 495
Gallatin, Albert, 354
Gambia River, 370
Gambier Island, 449
Ganges River, 360; Aryans in valley of, 6, 104, 596; nomad conquest of, 109, 402
Gao, 367
Garbyang, 551
Gargunza, 552
Garhwal, 553, 572, 584
Garonne River, 35, 338, 353, 361
Gartok, 208, 552
Gash River, 500
Gates of Bamian, 538
Gates of Herat, 163, 498, 544
Gauchos, 485, 509
Gaul, Cisalpine, 74, 180, 352; native peoples of Transalpine, 361, 369, 562; Roman expansion into, 2, 66, 74, 82, 97, 533
Gaza, 507
Geelvink Bay, 321
Geest, 112, 245
Gemmi Pass, 537
Genova, 533, 581; Canton of, 221, 527, 564, 581
Genghis Khan, 494, 495, 503, 544
Genial Period, 168-169, 208
Genoa, 99, 300; decline of, 13, 301; location of, 149, 283-284,

528, 547-548; medieval holdings of, 3, 271, 303, 427
Geographic factors, interplay of, 11-12, 14-18, 28, 129, 131, 134, 261, 286-287, 557, 607-608; multiplicity of, 1-2, 11-12, 14, 29-30, 59-60, 131, 269, 279, 282, 286-287, 342, 347, 363, 380, 422, 432-433, 442, 476, 619, 622, 626-627; stability of, 2-8
Geographical horizon, 69, 82, 89, 98, 187, 195, 283, 301, 303, 311, 330, 490
Georgia, 102, 481, 562
Gepidae, 85
German East Africa, 260, 276, 559
German Southwest Africa, 263, 266, 346-347, 498
Germans, area of ethnic stock, 180; ethnic boundaries of, 116-117, 136, 155, 211, 222-224, 229-230; expansion of, 155, 176, 189, 191-192, 198, 209, 211, 229-231, 272, 479, 543, 627-628; language and dialects of, 175, 191-192, 360-361, 479, 598. See also Teutonic race
Germany, coast of, 13-14, 255-256, 259, 262, 300, 304, 332; colonies of, 96, 114, 145, 158, 431, 482; expansion of Empire of, 110, 186, 188, 229-231, 351; location of, 133, 135, 140, 141, 144, 149-150; medieval claim to Italy, 4, 522, 539, 542; varied relief of, 20, 179, 477, 479, 522, 525, 558; rivers of, 30, 342, 350-351; Roman civilization in, 97, 533
Ges tribes, 56, 101, 110, 272
Gettysburg, 535
Ghadames oasis, 491, 506
Ghat oasis, 491, 502
Ghazni, 554
Ghent, 342
Giamda, 228
Gibraltar, 129, 154, 219, 249, 254
Gila River, 263, 329, 346
Gilbert Islands, 123, 448, 455, 463
Gilbert, Sir Humphrey, 406
Gilead, balm of, 505-506
Gilgit Valley, 568, 587, 589
Gilolo, 444
Gilyaks, 174, 388, 418
Girgenti, 443
Glacial Period, 168, 208
Glarus Canton, 359, 574, 593
Glasgow, 149, 247
Goa, 165
Gobi Desert, 27, 497, 503
Goklan nomads, 491, 499
Gomal Pass, 554
Gomera, 419
Gondokora, 325
Gonds, 596
Goshen in Egypt, 505
Gosnold's colony, 253
Goths, migration of, 77, 86, 87, 97, 109. See also Ostrogoths and Visigoths
Gotland, Island of, 304, 382, 426, 429
Gournia, 416
Graaf Reinet, 232, 369
Granada, mountains of, 537, 567
Gran Chaco, 297
Grasslands, see Steppes
Graswirthschaft, 574, 577
Graubünden, 222, 359, 564-565, 593
Great Appalachian Valley, 534-535
Great Basin, 102, 394
Great Britain, Celts in, 184, 304, 371, 403-404, 418; early hill settlements of, 563; insular location of, 45, 213-214, 264, 409, 434-435, 445; large area and political autonomy of, 381, 399, 401, 416, 432; lowlands and highlands of, 52, 113, 479; marine of, 70; vicinal location of, 134. See also Angles, Saxons, Norse, England and Scotland
Great Divide, 394
Great Fish Bay, 263
Great Lakes, as an inland sea, 66, 201, 247, 313, 375; in the fur trade, 5, 342, 540, 618; line of inland expansion, 44, 162, 338, 343, 354
Great Plains, of the United States, 483
Great Russia, 137, 479
Great Smoky Mts., 535
Great Wall of China, 226-227, 234, 493
Greece, civilization of ancient, 3, 18, 84, 192, 214, 259, 416-417; climate and relief in, 619; colonies of, 79, 96, 138, 145, 164, 187, 196, 250, 252, 265, 272-274, 281 303, 312; differentiation of culture in, 22, 113, 146; early maritime development in, 6, 13, 15, 107, 162, 187, 259, 266, 268,

297, 302; geographic and political dismemberment, 131, 177, 183, 195-196, 402, 591-592, 595; independence of, 4, 285, 546; intercontinental location of, 3-4, 131, 259, 265, 397, 405; small, naturally defined area of, 12, 134, 177, 180, 197, 214, 342, 476, 478; offshore islands of, 264-265, 447
Greek Church, 232, 339
Greenland, Arctic location, 129, 409, 448, 609, 633; coast settlements in, 152, 207, 249, 261-262, 386-387, 559; Norse colonies in, 88, 302, 422, 436
Greifswald, 284
Grenoble, 534
Grimsby, 264
Grimsel Pass, 524
Grinnell Land, 207
Grotius, Hugo, 315
Guadeloupe, 452
Guam, 172, 300
Guanacos, 178
Guanches, 88, 172, 177, 419. See also Canary Islanders
Guano deposits, 220
Guatemala, 157
Guiana, British, 106, 626; Dutch, 108; French, 220, 441; Indians of, 113, 272, 583
Guinea Coast, low, swampy littoral, 245, 259-260, 262, 279; native tribes of, 267, 279-280; political holdings on, 157, 271; trade of, 97, 245, 264, 276-278
Gulf of Bothnia, 272
California, 296, 352
Cambay, 6
Corinth, 186
Finland, 478-479
Guinea, 145, 441
Mexico, low plains of, 279, 260, 343; Mississippi tributary of, 44, 102, 338, 354; United States coast on, 142, 162, 256, 286
Naples, 453
Oman, 254
Siam, 307
Gulf States of U. S., 161, 619
Gulf Stream, 30, 141, 336, 613, 634
Gurgen River, 493
Gurkhas of Nepal, 581, 596, 619
Gustavus Adolphus, 581
Gutjerat Peninsula, 400
Gyanema, 552

Haarlem Meer, 324
Habitable area, 168-169, 206-208, 330, 610
Habitants, 92, 175, 222, 364-366
Habitat, effect of new, 46-48, 107, 120-121, 135, 175, 194, 199-201, 221, 279-280, 623; effect of previous, 16, 25-27, 88, 266-267, 273, 280, 299
Haida Indians, coast fisher tribe, 36, 57, 163, 248, 262; civilization of, 395, 417, 419
Hainon, 442
Hajikhak Pass, 538
Hallingdal, 549
Hamburg, 149, 150, 246, 283, 341, 347
Hami, 501
Hamilcar Barca, 151
Hamitic race, 7, 104, 117, 358, 559
Hammerfest, 618
Hanchow, 341
Hangchow, 352
Hannibal, 542, 544
Hanover, 370
Hanse Towns, maritime trade of, 13, 150, 196, 261, 284, 304, 331, 426; thalassic location of, 13, 136, 304, 311, 314; League of, 244-245, 286, 308, 339, 342, 348, 426, 429; sites of, 250
Hapai, 449
Hardanger Fiord, 340
Hartford Convention, 23
Harz Mts., 527, 555
Hauran, 58
Hausa traders, 118, 511
Haute Savoie, 220
Hautes-Alpes, 564
Havel River, 370
Havre, 246
Hawaiian Islands, American expansion to, 98-99, 187, 285; Asiatics in, 30, 460; checks to population in old, 462-465; effect of climate in, 628; oceanic way station, 381, 413, 426, 432, 438; population of, 165, 448
Hawes, Harriet Boyd, 416
Hawkins, Sir John, 406
Hayil oasis, 153
Hayti, Arawaks and Caribs in, 100-101, 265, 338, 406
Heat belts, 100, 612, 617-618. See Climate

Hebrews, conquest of Canaan, 79, 494
Hebrides Islands, 184
Hebron, 496
Hedin, Sven, 57
Heilprin, A., 208
Heimey Island, 449
Hejaz, 498
Helgoland Island, 172, 420
Heliopolis (Egypt) 492
Hellas, 111, 397, 401-402; 535; migration into, 77-78, 404. See also Greece
Hellespont, 249
Helmud River, as boundary, 362
Helots, 430
Helsingfors, 272
Helvetian migration, 553
Hemisphere, Northern, 63-64, 179, 312-313, 392-393; Southern, 312-313, 392-393; Eastern, 384-386, 390-391; Western, 384-386, 392. See also Americas
Henry III., 372
Henry, the Navigator, 432
Heraclea, 252
Herat, 491, 538
Hercules, 327
Herder, Johann Gottfried von, 11, 68
Herero, cattle-breeders, 41, 55
Hereward the Saxon, 372
Heri-rud River, 502, 538
Hermupolis, 453
Herodotus, 7, 99, 281, 296, 319, 488, 493, 509
Herzegovina, 177
Highlands, see Mountains
Himalaya Mts., 37, 330, 356, 442; as barrier boundary, 18, 215, 228, 523, 543-544, 551-553; Mongoloid peoples of, 136, 526, 534, 543; piedmont border zone of, 41, 526, 531-532, 543; passes of, 100, 543, 587; small states of, 359, 588, 594; typical mountain life in, 207-208, 572, 575, 583 584, 587, 588, 616
Hindu Kush Mts., 41, 122, 568; as barrier, 103, 215, 536; pass routes across, 529, 536, 538, 551
Hindu religion, 100, 526. See also Brahmanism
Hinterlands, 142, 143, 256-259, 403
Hiroo, 250
Historical Movement, amalgamation of races in, 45-46, 83-86, 88-93, 97, 117-118, 120; assimilation of culture by, 83-84, 86-88, 99, 117-121, 135, 174-175; barriers to, 81-83, 97, 132, 212-215, 242-244, 390, 473, 521, 525, 532; climatic factors in, 104-109; colonization as form of, 75-76, 78, 94-96, 106, 107; commercial expansion, 78, 96-100, 104, 107, 187-188, 269, 300-304; complex movements, 84-86, 88-89, 92, 122; differentiation through, 102, 110, 112-118, 122-123, 391, 393; direction of, 74, 78, 86, 97, 102, 104, 109-111, 154, 394-395, 533-535; dispersion of peoples, 93-95, 122-124, 155; emigration, 93-96; evolution of, 75-78, 80-84, 104; expansion, 80, 96-97, 171, 187-188; expansion of European peoples, 106-107, 109, 114, 119-120; forms of, 75-76, 78-80; geographic factors in, 5-6, 43-46, 79, 88, 133, 293-295, 393, 475-476; geographical horizon and, 82, 89, 98; importance of, 25, 75, 78-80, 84, 122, 133; modification in transit, 86-88, 122; nature of, 75-78, 80, 86, 88; psychical motives in, 111-112; religion as motive in, 98-100, 111-112, 185, 187, 235, 237, 269, 275; retreat and flight, 80-81, 83, 92-94; slavery as form of, 90-91; war as form of, 75-78, 83-85, 88-93; zonal limits of, 100-107, 113, 116. See also Migrations and Nomadism
History, relations between geography and, 10-11, 51, 68-69, 262, 475, 545; universal, 30, 82, 292-295, 311
Hoangho, floods and dikes of, 176, 326-329; valley, 7, 227, 352, 354, 499
Holland, area of, 177, 180, 183; inland waterways of, 150, 342, 351, 353, 355, 473; maritime location of, 15-16, 48, 108, 130, 137, 150, 284, 331-332, 351, 461; population of, its distribution, 112, 245, 370, 477, 480; reclamation of land in, 80, 107-108, 245, 324; spirit of freedom in, 183, 371 372; tropical possessions of, 51, 96, 616. See also Dutch

Holoarctic realm, 385
Holston River, 370
Hondo, 176, 399, 557. See also Japan
Honduras, 394
Hongkong, 187, 347, 367
Horse, 34-35, 64, 392
Horticulture, in oases, 501-502, 559
Hospice, 549
Hottentots, 48, 297-298; decline and withdrawal of, 87, 93, 106, 114, 119, 160; ethnic stock of, 35, 158; hybrids of Dutch and, 116, 623; pastoral nomads, 35, 434, 583
Hova Malays, 79, 384, 423, 588-589, 627
Huc, M., travels of, 227, 511
Hudson Bay, 47, 154, 302, 349; Company, 10, 60, 61, 114, 192, 274
Hudson, Henry, 337
Hudson River, Dutch settlements on, 108, 366, 369, 375; tidal course of, 246, 337; and Mohawk route, 5, 130, 342, 354, 375, 550, 554
Huguenots, dispersion of, 21, 93-94, 111, 237, 275, 439, 454
Hull (England) 264
Human race, unity of, 30, 68, 121, 171-172, 292, 333; wide distribution of, 171, 293, 610-611
Humber River, 44, 245, 338, 370
Humboldt Bay, 321
Humboldt River, 346
Hungarians, valley distribution of, 45, 135, 361. See also Magyars
Hungary, central location of, 14, 136, 139-140, 143; ethnic elements in, 92, 136, 148; grain of, 150; mountains of, 579
Huns, invasion of Europe, 5, 7, 77, 85, 109, 111, 216, 439, 492, 493
Hunting tribes, geographic conditions for, 35, 117, 158, 162, 445-446, 609, 614, 625; land bond among, 55-56, 61-65, 155; savage economy of, 10, 47, 212; weak tenure of land, 60, 80-81, 184
Huntingdon, 245
Hunza mountaineers, 541, 568, 586-587, 589, 594
Huron Indians, 368
Hybridization of races, climatic factor in, 10, 104, 107, 118, 120, 135, 628; on boundaries, 119, 226, 599; on coasts, 274-275; on thalassic islands, 427-428
Hydrographic centers, 44, 140, 162, 348-349, 353-354
Hyksos, conquest of Egypt, 7, 109, 151, 176, 495
Hyperboreans, 35-36, 172, 385, 486, 624-625. See also Arctic

Iapodes, 553
Iberian Peninsula, area, 398-399; Atlantic location of, 258, 406, 630; Celts in, 164; intercontinental location, 28-29, 110, 132, 405, 537; naturally defined, 133, 401, 404, 537; Saracens in, 110, 132, 231. See also Spain
Iberian race, 75, 86
Iceland, 35, 262, 446, 448-450; Celts in, 88, 298, 387; climate of, 442, 460, 631, 634; naturally defined location, 45, 183, 432, 436-437; Norse in, 89, 129, 422, 432, 439; oceanic island, 381, 386-387, 435-436, 442; way station to Greenland, 129, 264, 386
Ichang, 341, 367
Ichu grass, 64, 575
Idaho, 296
Igorotes, mountaineers, 279, 532, 570
Ili River Valley, 110, 235
Iller River, 361
Illinois, 112, 375; River, 364
Illyrian Coast, 459
Illyrian race, 402
Inca Empire, civilization of, 91, 160, 200, 382, 569; location of, 108, 374. See also Andean states
India, area of, 145, 342, 398-399; agriculture in, 329, 551, 616; civilization of, 309, 329; coastline of, 18, 254, 399; colonial and commercial peoples in, 107, 119, 138, 157, 269, 285; distribution of population in, 60, 65, 268, 403, 548, 614, 616; emigration from, 106, 268, 626; ethnic elements of, 41, 102, 104, 115, 136, 165, 526; mountain boundaries of, 228, 400, 523, 525, 531-532, 536, 544, 551-553, 589; mountain pass routes to,

see Himalaya, Suleiman Mountains, and Hindu Kush pass routes; nomad invaders of, 7, 46, 109, 142, 403, 496, 536; peninsular location, 399-400, 402-404, 583-584; retardation of, 18-19; rainfall, 610, 614-615
Indiana, 375
Indian Ocean, as an enclosed sea, 308-310, 315, 425; islands of, 285, 425, 451; maritime peoples of, 268-269; navigation in, 30, 298, 308-309; peninsulas and inlets of, 254, 398; trade route of northern, 17-18, 30, 270, 285, 309-310, 400; tropical trade with Europe, 6, 82, 149, 284-285
Indians of America, decline of, 92, 119, 170, 176-177; ethnic origin of, 102, 109, 387-389, 396, 473; ethnic uniformity of, 382, 390, 608; hunter stage of development among, 55-56, 62-64, 80, 281; migrations of, 55, 78, 100, 102, 116, 394-395; native civilizations of, 389, 395-396; scattered location of, 114, 138, 154-157, 159 160, 163, 177, 178, 184; tribal territories of, 54-57, 61, 217, 219
Indian Territory, 372
Indo-China, 104, 534
Indus River, and Oriental trade route, 254, 337, 345; mountain tributaries of, 295, 356; mountain valleys of, 37, 550, 568, 585; nomad invasions of lowland valley of, 7, 46, 109, 142, 402, 403, 536
Industrialism, in relation to land, 65, 67, 70
Infanticide, 67, 463-464, 584-585
Insalah oasis, 491
Inthas, 320
Inn River, mountain valley of, 359, 361, 534, 537, 539, 597
Invernesshire, 450, 564
Iona Isle, 436
Ionian Isles, 258, 459
Ionians, 78, 281, 459
Ionian Sea, *mare clausum*, 314
Iran Plateau, 476
Irawadi River, 259
Ireland, areas of Celtic speech in, 404, 421; Celts of, 45, 184, 387, 418; climate of, 615; early emigration from, 95-96, 461; Christianity in, 418-419, 436; insular character and location of, 264, 381, 397, 429, 435, 447; lake villages of, 319; navigation in, 296-298; Shannon River boundary in, 361; Teutonic fringe of, 184, 273
Irish Sea, 302
Iron Age, 387, 390, 434
Iron Gate, 361
Iroquoian stock, 54-55, 102. See also Cherokees and Tuscaroras
Iroquois Indians, location of, 130, 138, 154-155, 209, 554; war campaigns of, 89, 93, 195, 368, 535, 562
Irrigation, and terrace agriculture, 26, 46, 456, 567, 568, 569-570, 572; factor in early civilization, 328-330; factor in social and political union, 327-329, 356-357, 359; in arid lands, 7, 10, 108, 163, 328-330, 356, 359, 361, 501-502; river canals for, 352-353, 356
Irtysh River Valley, 113, 345
Ischia, Island of, 440, 453, 457
Isère Valley, 534, 536, 550
Ishmaelite Arabs, 506, 510
Islam, see Mohammedanism
Islands, advanced agriculture of, 455-458, 569-570; advanced navigation of, 298-300; area and location in political autonomy of, 381-382, 424, 429, 432; artificial checks to population in, 67, 461-465; as asylums, 94, 409-410, 423, 436-439; as convict stations, 439-441; as maritime markets, 29, 250, 304, 305, 321, 424-426, 453-454; as maritime way stations, 29, 87-88, 153-154, 264-266, 338, 392, 426-427; climate of, 450-453; conservative and radical tendencies in, 412-414; dense populations of, 447-454; differentiation of insular peoples, 110, 133, 172, 418-419, 421; differentiation of languages in, 419-421; early and distinctive civilization of, 214, 415-419, 435-437, 444; emigration and colonization from, 123, 459-461; empires, 444-445; ethnic sources of population in, 417-418, 422-424; flora and fauna of, 34-35, 410-412, 417, 434, 441-442, 445-446, 465;

importance of location of, 381-382, 425-427, 431-433, 447; isolation of, 401, 411-412, 414-415, 417-421, 429-431; isolation and protection of, 252-254, 367-368, 409-410, 429-430, 434-438, 454; isolation and retardation in, 411, 420, 433-436, 443; isolation in oceanic, 381, 383-384, 386-387, 411, 412, 422, 426-427, 431-432, 440-441; isolation modified by advanced navigation, 412, 422-424; limitation of small area in, 43, 177-179, 252, 277, 409-411, 415-417, 420, 421, 424, 429-431, 434, 442-443, 445-446, 454-455, 461; mixed population of thalassic, 304, 382, 424-428; political detachability of, 426-429, 431-432; relation of peninsulas to, 409-410; relief of, 446; remains of broken empires in, 430-431; survivals in, 418, 420-421, 441-443; unification of race in, 45, 421-422; vacant, 449-450
Isle du Diable, 441
du Salut, 441
of Athelney, 372
Ely, 372
Man, 40, 443, 453
Orleans, 368
Isolation, and political autonomy, 3, 133, 257; and protection, 133-134, 180, 404, 584; and retardation, 144, 175, 397, 570; and survivals, 370-372; psychical effects of, 18-20, 582. See also Differentiation, Islands, and Mountains
Isotherms, 100, 617-618, 622-624; effect of compressed, 617-619
Italy, Alpine boundary of, 4, 222, 535, 554; colonies of, 114, 198; contrast of continental and peninsular, 19, 399-405, 621; culture of, 99, 111; Greek colonies on coasts of, 265, 459; inroads of barbarians into, 77, 83, 85, 522; lakes of, 162, 318-319, 373, 549; language of, 401, 598; naturally defined location of, 133, 134, 180, 183; ratio of coast to area in, 255-256; thalassic location of, 283, 300-301; varied relief of, 39, 70, 422, 478, 525, 566. See also Alps, Apennines, and Po Valley
Ivory Coast, 280
Jaca, 550
Jacob, 496, 505
Jade Bay, 324
Jamaica, 382, 452
James River, 337
Jamestown (Va.), 369
Jamna River, 360
Japan, advanced agriculture in, 446-447, 457-458, 570, 576; area of, 386, 416, 420, 432; coast and maritime development in, 187, 332, 342; conservative and radical tendencies in, 145, 413, 414; continental sources of its culture, 134, 306-307, 405, 414-415; density of population, 172, 447, 463; differentiation of race and culture in, 174, 175, 413-414, 419, 420; emigration from, 123, 460; ethnic elements in, 45, 115, 134, 306, 422; expansion of, 129, 176, 189, 191, 194, 198, 271, 272, 307, 423, 428, 432; historical connection with Korea, 66, 80, 110, 134, 151, 194, 271, 405, 460; insular location of, 6, 133, 141, 213-214, 285, 306-307, 401, 428, 434, 437-438, 442, 445; national spirit of, 133, 182, 312, 414; relief of, 446-447, 478, 557; seclusion, 67, 69, 191, 332
Japan Sea, 137, 308, 312
Java, 208, 267, 284, 382, 465; agriculture in, 369-370, 450; density of population in, 447, 452, 626; Indian civilization in, 268, 309
Java Sea, 307
Jefferson, Thomas, 42, 199
Jerusalem, 90, 93, 99, 111, 129, 185, 303
Jesuit missionaries, 98, 277; in Japan, 414, 439
Jesup Expedition, 389
Jews, dispersion of, 75, 91, 93, 111, 124, 623; national spirit of, 183; previous habitat to Palestine, 16, 26, 266. See also Hebrews, and Judaism
Jezreel, Vale of, 16, 545
Jhelam River, 356; valley of, 359
Johannesburg, 199
John, King of England, 372
Jordan River, 360; plains of, 58, 496
Juan de Fuca Strait, 202

Judaism, 41, 511-512, 514-515, 599-600
Judea, 16, 58, 196, 266, 346, 505, 545, 599-600
Judges of Hebrews, 47
Jugor Strait, 207
Jull Lake, pile villages, 320
Junker, Wilhelm, 155, 216
Jura Mts., 539, 562; barrier, 214, 537; mountain industries in, 579; piedmont roads of, 527
Justinian, 429
Jutland, 260, 397, 399, 403, 447

Kabul, 529, 538, 551, 554
Kabul River, 502
Kabyles of Atlas Mts., 39, 580, 593
Kadesh, city of, 534
Kadiak Island, 29, 248
Kaffirs, 135, 297-298, 580, 623; former expansion of, 7, 104, 119; retreat and decline of, 93, 138, 160, 176, 211
Kafiristan, 595, 597, 599
Kaimur Hills, 538
Kalahari Desert, 35, 65, 346, 500, 504
Kali River, 551
Kalmuck nomads, 7, 488, 509; agriculture of, 500; as frontier police of Russia, 234
Kama River, in Russian expansion, 162, 226
Kambing Island, 165, 431
Kamchatka, 235, 285, 305, 388
Kamerun, 39, 373; coast of, 277
Kamerun Bay, 262
Kamerun Mts., 280
Kanawha River, cañon of, 534
Kandahar, 536, 538
Kandy (Ceylon) 600
Kanem, Sudan state of, 373-374
Kangra, 572
Kansas, arid climate of, 499
Kansu Province, 227, 228, 234, 235
Kant, Emanuel, 10
Kanuri Sudanese, 362
Karaguc, 495
Karakorum Mts., 97, 529, 550; passes of, 586-587; temporary villages in, 207-208
Karakorum Pass, 529, 550-551, 611
Karroo Desert, 490
Kashgar, 43, 359, 529
Kashmir, state of, 359; as mountain transit land, 523, 539, 589; carriers in, 532; communal pastures in, 575; industries of, 578; passes of, 536; pass routes to, 551-552, 587; terrace agriculture in, 568
Kayaks, of Eskimos, 248, 299
Kazan, 254, 479, 493, 509
Ke Islands, 428, 444
Kedar, Desert of, 505
Keeling Island, 473
Kent (England) 286, 370, 397
Kentrites River, 216
Kentucky, 89-90, 113, 217, 218, 228; retarded mountain region of, 45, 113, 631
Khaibar Pass, 528, 538, 544, 553, 595
Khalkhas nomads, 234
Khartum, 498
Khasia Mts., 526, 584, 594
Khinseh River route, 346
Khiva, 163, 491
Khorasan, 491, 507
Khotan, rivers of, 502
Khusistan, rugs of, 507
Kiakhta, 217
Kief, 339, 348
Kiel, 284; Canal, 409
Kilia, mouth of Danube, 350
Kilwa, 157, 269
Kilwauru, 321, 424, 453
Kimberley, mines of, 199, 580
Kinik Indians, 137, 278
Kiowa Indians, 329
Kirghis, as typical pastoral nomads, 57, 485, 488-489, 497, 509; caravan trade of, 505-506; marauders, 234, 491; mountain pastures of, 113, 541, 587; of Central Asia, 41, 510; of the Russian steppes, 163, 235, 493, 500
Kirman, rugs of, 507
Kirthar Mts., 525
Kitchener, Lord, 498
Kittara, nomad state of, 495
Kiu-siu Island, 134, 306
Klondike mines, 340, 531
Kohat Pass, 553
Kokan, buried cities of, 550
Koko-Nor, nomads of, 504, 530, 587
Kola Peninsula, 207, 397, 486
Kolarian tribes of India, 159, 596
Kolima River, 344, 486, 624
Kong Mts., 325
Königsberg, 245, 246

Koran, 510
Kordofan, 65, 358
Korea, Buddhism in, 600; Chinese boundary of, 217, 236, 400, 403; civilization of, 134, 137, 415; density of population in, 447; peninsula location of, 133, 141, 213, 399-401, 405. See also Japan
Korean Strait, 428
Korkus, 62, 396
Koryaks, 388-389
Kot tribe, 388
Kottbus, 482
Koweit, 505, 507
Kronstadt Bay, 246
Kuan Hsien, 530
Kuban River, 235, 237
Kublai Khan, 428, 437
Kuen Luen Mts., 62, 501, 503
Kugiar Province, 550
Kulm, 529
Kumaon Province, 551, 572, 584
Kunawar Province, 584
Kunduz, 529
Kunene River, 278
Kurdistan, highland location of, 216, 562, 595
Kurds, marauders, 216, 562, 587; pastoral migrations of, 403, 562, 587
Kurgans, 481
Kurile Isles, 305, 388, 418, 442, 446
Kuro Siwa, 134, 388, 613
Kursachsen, 60
Kuskokwin River, 248
Kutsha, 359
Kwang-chan Bay, 165
Kwangtung Province, 388, 621

Labrador, 397, 406, 618
La Chine, 337
Lacinian Cape, 314
Laconia, 110
Ladak, typical mountain environment in, 37-38, 568, 572, 583-586
Ladino, language, 222
Lady Franklin Bay, 207
Lagoons, coastal, 259-260
Lagos, in Nigeria, 276; in Spain, 13
Laibach Valley, 553
Lake Baikal, 344
Balkash, 110
Borgne, 353
Chad, 296, 362, 368, 373, 374, 381, 462, 492, 506
Chalco, 374
Champlain, 354
Como, 550
Constance, 373, 534
Erie, 375
Garda, 373
Geneva, 221, 373, 534, 554
Huron, 368
Ij, 324
Issik Kul, 57
Ladoga, 353, 375, 441
Lucerne, 374, 537, 549, 593
Lugano, 373
Maggiore, 162, 373, 537, 549, 593
Maracaibo, 338, 374
Michigan, 89, 348, 374, 375
Mohrya, 320
Ngami, 298, 346
Nicaragua, 78
Nyassa, 320, 375, 386
of the Woods, 98
Onega, 353
Ontario, 130, 375, 540
Pontchartrain, 353
Prasias, 319
Salvador, 353
Superior, 5, 44, 47, 98, 343, 344, 348
Tanganyika, 386, 570
Tezcoco, 374
Thun, 373
Titicaca, 296, 373-374
Winnebago, 354
Winnipeg, 344, 349
Zurich, 373
Lakes, as fresh-water seas, 375; politico-economic importance of, 373-375, 549; relation of rivers to, 336; salt, 374-375
Lama, Grand, 112, 514
Lamaseries, of Central Asia, 228, 568, 572, 582-584, 586
Lampedusa Island, 440, 457
Lamu, 257, 252
Lancashire, 453, 564
Lancerote Island, 419, 462
Land-masses, see Continents
Languages, and area, 174-175, 180-181, 190-191; and geographic conditions, 41, 403, 404, 423, 442; boundaries of, 222, 360-361, 401, 526, 539, 543; isolation and differentiation of into dialects, 22, 48, 117, 199, 175, 401, 419-421, 479, 510, 597-599;

isolation and survival of, 164, 370-371, 404, 420-421; mixed on coasts and thalassic isles, 84, 276-277, 427-428
Langue d'oil, 418-419
Lapland, 63, 141, 485, 557
La Plata River, 100, 154, 262, 338, 342, 351, 625
La Pointe, 98
Lapps, 35-36, 172, 624; reindeer tribes, 152, 215, 218, 486, 560
La Salle, explorations of, 337, 349
Latham, Robert, 388
Latin America, 84, 114, 120, 135
Laurentian Highlands, 336, 522
Layard, A. H., 295
League of the Rhine Cities, 342
Lea River swamps, 370
Lebanon Mts., forests of, 277, 477; longitudinal valley of, 534-535; Phoenician seaboard of, 130, 254
Lechaeum, 250
Lech River, 361
Leh, 208, 272, 550-552
Leipzig, 544
Lemnos Island, 249
Lena River, climate of, 486, 624; highway of Russian expansion, 44, 344; in the fur trade, 10, 344, 505
Lenni-Lenapi Indian trail, 5
Lernian marshes, 327
Leroy Beaulieu, A., 479, 630
Lesbos Island, 454
Letto-Lithuanians, 224, 371, 479. See also Lithuania
Leuk, 566, 578
Leukas Island, 410
Levant, trade of, 3, 111, 276, 303
Lewis and Clark Expedition, 98, 357
Lhassa, 100, 112, 208, 227, 228, 514, 543, 551-552
Liberia, state of, 111, 280, 386
Libya, 252, 415, 454; Desert of, 163, 504
Liechtenstein, 233
Liguria, 91, 257, 283; Apennines of, 527
Limosa Island, 451
Lincoln, Abraham, 441
Lincoln (England), 245, 370, 372
Lincolnshire, 108, 324
Lindisfarne Island, 436
Linguæ francæ, 276-277
Linth River, 373; valley of, 359
Lipans, 154
Lipari Islands, 440, 446, 451, 457
Li Ping, 327
Lipu Lekh Pass, 551
Liro Valley, 550
Lisbon, 97, 149, 153
Literature, and geography, 181, 599
Lithuania, 122, 272; survival of race and speech in, 124, 421, 478
Little Russia, 138, 224, 479
Litus Saxonicum, 273, 279
Liverpool, 149, 283
Livingstone, David, 36, 38, 320, 346, 362, 368
Llamas, 63-64, 108, 575
Llanos, 483, 485
Loanda, 153, 278
Lob Nor basin, 497, 503
Location, and area, 129-130; central, 17, 138-141, 143, 145, 148, 150, 163, 254-255, 348-486; continental, 130-131, 144, 149; contrasted or complementary, 137, 143-146, 150-151, 160-161, 505, 547-548, 551-552, 557-558, 588, 616; evolution in, 148-150, 164, 282-283; importance of, 129-131, 150, 381-382, 426, 432; intercontinental, 28, 131-132, 151, 283, 305, 308-310, 405-406; isthmian, 131, 151-152, 283; maritime, 15, 141-142, 246-253, 257-262; naturally defined, 12-13, 45, 67, 115, 117, 123, 130, 133-134, 163, 169, 172, 257, 268-269, 358-360, 393, 402-404, 447, 593, 595; naturally defined and early development, 134, 182-183, 185, 191, 197, 213-214, 307, 394, 396, 405, 421, 444, 476, 635; peripheral, 138-139, 141, 143-146, 150, 163-164; relation between peripheral and central, 141-146, 150, 162, 255-257, 263, 271-273, 281, 307, 433; scattered, 80, 124, 138, 139, 152-160, 163-164; scattered location in growth, 154, 155-158, 210-211; scattered location of decline, 158-160, 164-165, 391, 430, 598-599; strategic, 130, 152, 350-352, 445, 523, 554; thalassic, 136-137, 303-306, 384-385, 388-389, 393, 399; vicinal, 3, 14, 116-117, 131-138, 146-152, 161, 221-229, 380-387,

397, 586; zonal, 173, 284, 308, 394, 397, 611-613, 615, 616
Lofoden Islands, 450
Loire River, 35, 246, 338, 353-354, 533; plains of, 482
Lolos tribes, 599
Lombards, in Italy, 74, 83, 85, 87, 108, 439
Lombardy, 39, 161, 326
Lombok, 208, 268; advanced agriculture in, 456, 570; density of population in, 452
Lombok Strait, 473
London, 175, 245, 246, 264, 347, 381
Long Island, 381, 443
Lorraine, 189, 229, 230
Los Angeles, 346
Lot, 47, 58, 488, 493, 496
Louis XIV, 198
Louisiana, 44, 229, 238, 371; Indians of, 102, 155; Purchase, 42, 66, 198, 211, 349-350
Louisville (Ky.), 349-350, 370
Lowlands, density of population in, 65, 112, 476-477, 548; distribution of in the several continents, 474-476; historical development of, 477-480; historical movement in, 475-476, 478-479, 521; influence of soils and slight reliefs in, 112, 480-481; mountaineer conquests in, 475-476, 586, 588, 599; political expansion in, 482
Lualaba River, 320; islands of, 368
Lübeck, 13, 252, 283, 284, 304, 339
Lucerne, canton of, 374, 527; city of, 528
Lucullus, 90
Lukmanier Pass, 549
Luni River, 6
Luristan, 595
Luxemburg, 233
Luzon, mountain Igorotes of, 532, 570; distribution of primitive Negritos in, 146, 158, 274, 280; wild tribes in, 145-146
Lynn, 372
Lynn Canal, 278
Lyon, 373, 536, 553

Macao, 367, 431
Macassar Strait, 208, 473
Macdonnell Range, 526-527
Macedonia, 92, 142, 180, 402, 535
Mackenzie River, 116
Madagascar, area and location, 381, 418, 423-424, 438, 451; ethnic and political relation to Africa, 383, 423-424, 432-433; fauna of, 423, 441; Hova Malays of, 384, 588-589; mixed population of coasts, 164, 424, 432
Madeira Isles, 153, 422, 432, 448
Madeira River, 531
Madisha, 269
Madrid, 580
Madura Island, 456
Mafia Island, 252
Magdalena River, 259, 338
Magdeburg, 342
Magellan, 272; Straits of, 427
Magna Graecia, 96
Magyars, 41, 138, 525. See also Hungarians
Mahadeo Hills, 62, 538
Mahdi uprising, 498
Mahe (India), 165
Mahe Island, 451, 453
Makoko River, 346
Makololo tribe, 106, 362, 368
Main River, 351
Maine, state of, 222, 253, 261
Mainland Island, 450
Maize, cultivation of, 64, 87, 500, 501, 571
Majorca Island, 428, 460
Malabar Coast, 30, 257, 284
Malacca, 193, 284, 298, 312; Chinese in, 30, 267, 307; Negrito remnants in, 159, 391; peninsula of, 287, 398, 400, 405
Malaga, 567
Malay Archipelago, 30, 193, 446, 470; density of population in, 451-452, 456; Negritos in, 159, 391
Malays, coast villages of, 266, 272, 320, 321; distribution of, 39, 103, 107, 134, 144, 382, 385-386, 422, 423, 459; nautical efficiency of, 41, 193, 321, 390, 424-425
Malindi, 157
Maloja Pass, 550
Malta, density of population in, 43, 451, 453, 457; emigration from, 123, 460; importance to England, 154, 431; location of, 413, 427-429
Malthus, on checks to population, 61, 461, 464, 579
Manchester Ship Canal, 247

Manchuria, 415, 475, 611; Chinese expansion into, 189, 581; Russian expansion into, 143, 188, 211, 213, 229, 271
Manchus, 184, 306, 423, 495-496
Mandan Indian villages, 98, 357
Manganja tribe, 320
Mangyan tribe, 272
Manhattan Island, 369
Manila Bay, 281
Manitoba, 615
Mantze tribes, 234, 573
Maoris, 103, 177-178, 438
Marches, see Boundaries
Marcomanni War, 85, 86
Marco Polo, 269, 541
Mare clausum, 314-315
Marianne Islands, 448, 464
Maritime development, see Coasts and Navigation; periods of history, 311-312. See also Aegean, Atlantic and Mediterranean periods
Marius, Caius, 540
Markets, border, 207-208, 227, 364; coast, 267, 305, 505; desert, 505 507; island, 108, 285, 305, 321, 413, 424-426, 505; mountain, 100, 551-553; piedmont, 527-531
Marne River, 338, 361, 367
Maros River, 526
Marquesas Islands, 462, 464-465
Marquette, Jacques, 98, 349
Marra Mts., 526
Marseilles, 276, 303, 547, 581
Marshall Islands, 299, 448
Martigny, 360, 536
Martinique, 452
Maruuga negroes, 570
Maryland, tidewater country of, 16, 61, 261; wheat of, 47, 284
Masai tribes, 559
Mascat, 145, 268, 269, 276
Mason, Otis, 78, 389
Massachusetts, 11
Massilia, 274, 312, 523, 532
Massowa, 305, 611
Matto Grosso, 38
Mauritius Island, 473, 627; density of population in, 451, 453; oceanic market, 108, 269, 413, 426, 453
Mayas, civilization of, 157, 395
Mayotte Island, 451
Mban, 444
Mbenggn, 444
Meath, 361
Meaux, 338
Mecca, 99, 111, 129, 153, 185, 492, 510, 512
Mecklenburg, 479
Medes, 492, 588
Media, 91
Mediterranean race, 97, 132, 222, 303-304, 306, 385, 391, 401, 404, 416, 422, 522, 543, 620, 621, 628; in England, 75; relation of Teutonic race to, 121
Mediterranean Sea, as an enclosed basin, 191-192, 254, 282-283, 284, 300-301, 310-311; climate of, 109, 136, 557; contrasted eastern and western basins of, 13, 96, 145, 152, 249, 266, 284, 429; early civilization of, 84, 122, 130, 131, 136, 262, 280, 281, 303-304, 306, 515, 634; European front of, 148-250, 258, 339, 532; intercontinental location of, 308, 385; islands of, 427, 450-451, 457; maritime development in, 107, 131, 187, 252, 284, 300-301; period of history, 82, 311; political union of, under Romans, 136, 191, 192, 194, 311-312; trade with the North Sea, 82, 540; trade with the Orient, 16, 18, 28, 131, 270, 276, 283, 425
Megara, 250, 429
Mekong River, 259
Melanesia, agriculture in, 56, 455-456; area and fauna of, 445-446, 465; artificial checks to population in, 463, 465; negroid race of, 38, 100, 124, 165, 272, 391, 434; Polynesian and Malay immigrants in, 77, 272, 460
Melville Sound, 312
Menam River, 259, 322-323
Menapii, Rhine villages of, 357
Mera Valley, 550
Mercenaries, 581
Meroe, 506
Mersey River, 149
Merv, 163, 345, 357, 491, 507, 538
Mesas, pueblos in, 329
Mesen River, 348
Meshed, 507, 528
Mesopotamia, civilization and irrigation in, 329, 352; desert border of, 400, 506; mountain border of, 402-403, 475, 476, 586, 588; nomads in, 47, 109; river

navigation in, 295, 296, 349; steppes of, 26, 266
Messenia, 430
Meuse River, 353
Mexico, altitude zones of, 558, 560; area of, 182, 430; boundary zone of, 220, 221, 237, 489; climates of, 617, 619, 627; lakes of, 374; location of, 130, 353, 430; mountain carriers of, 531; native civilization of, 78, 102, 329, 390, 392, 395, 635; Spanish in, 66, 84, 98, 111, 120, 176, 178
Mexico City, 231
Miami Indians, 89
Miami River, 364
Michilimackinac Island, 368
Micronesia, 56, 446, 456, 460, 465
Midianites, 506, 545
Migrations, 75-77, 84-88, 297-300. See also Historical Movement
Middlesex (England) 370
Milan, 99, 528
Mindanao, 39, 272, 278, 281, 444
Mindoro, 145-146, 272
Minemerg, 575
Minjak Province, Tibet, 227
Minnesota, 65, 632
Minorca Island, 420
Min River Valley, 530
Miocene land bridge, 473
Miquelon Island, 430, 450
Miris tribe, 584
Missionaries, as agents of expansion, 75, 98-99, 187, 628
Mississippi River, as a boundary, 3, 66, 142, 155, 162, 190, 363; commerce of, 198, 199, 201, 344, 350; flood-plain of, 11, 326, 364; highway of expansion, 44, 98, 134, 212, 338, 343-344, 348 349; importance of mouth of, 111, 198, 259, 349-350, 353; Indians of, 155, 177, 364; valley of, 176, 199, 286, 482, 544, 568-569
Mississippi, state of, 102, 155
Missouri River, 44, 162, 297, 355, 357, 477, 522; in the fur trade, 98, 155, 211, 530
Mobile River, 218
Mocha, 145
Mohammed, 506, 509, 510
Mohammedanism, desert stamp of, 512-515; geographical distribution of, 84, 99, 112, 153, 185, 193, 281, 305, 406, 504, 510-513, 526, 585; stimulus to expansion, 268-269, 272, 512-514
Mohave Desert, 346
Mohawk depression, as mountain pass, 5, 44, 130, 209, 342, 474, 533, 544, 548-549; Erie Canal through, 5, 540-541; strategic location in war, 540, 554
Mohawk River, 375, 549, 618
Mohegan Island, 253
Moldavia, 351
Mollendo, 531
Molokans, of Russia, 235
Moluccas, 208, 268, 285, 444, 446, 452
Mombasa, 157, 252, 263
Mongolia, arid pastures of, 63, 483, 548; border regions of, 217, 234-236; Chinese expansion into, 189, 226-227; nomad expansion from, 109, 110
Mongolian race, area and distribution of, 103, 174, 225-226, 388-389, 391; Arctic branches of, 36, 135, 173, 210, 385; elements in Himalayan India, 102, 402, 526, 585; in Farther India, 534; in Japan, 110, 405, 422, 437
Mongols, central location of, 109-110, 136; empire in India, 6, 46, 180, 402, 496; nomadism of, 226-227, 234-235, 497, 503. See also Tartars
Monotheism, in deserts and steppes, 1-2, 27, 511-512, 515
Monroe Doctrine, 52, 199 200
Mons Matrona, 536
Monsoons, and rainfall, 270, 489-490, 567, 615; and sailing routes in the North Indian Ocean, 30, 309
Mont Blanc Range, 220, 542, 546, 550
Mont Cenis, 548
Monte Rosa Alps, 543, 557
Montenegro, 143, 233
Montesquieu, 18, 68, 608
Montevideo, 347
Montfort, Simon de, 372
Mont Genevre Pass, 536
Montreal, 343, 360, 364; as fur market, 5, 375; head of sea navigation at, 247, 337, 347; island site of, 369
Mont Reale cloister, 509
Moors, in Spain, 25, 79, 110, 496,

537; in the Canary Islands, 88; Saharan traders, 506
Moqui Indians, 78, 95. See also Pueblo Indians
Mora River, 530
Moravia, 86, 136, 224
Morgan, Lewis, 54
Morocco, 97, 250, 295, 386, 506; and Spain, 132, 537
Moros, coast location of, 39, 278-279, 318; migrations of, 88, 272
Moscow, 162, 185, 194, 339, 348; Government, 632
Moselle River, 351; valley of, 565
Moses, 509, 511
Mound-builders, distribution of, 108, 364; sites of, 326, 369
Mount Athos, 249
Everest, 557
Furea, 373
Kilimanjaro, 559, 607
Oera Pass, 553
Mountains, agriculture in, see Terrace agriculture; as barriers, 43-44, 97, 231-232, 269, 400-402, 521, 523-524, 532-533, 535-538, 541, 544, 546-548, 561, 614; as boundaries, 215, 220, 224, 357-360, 542, 593; as transit regions, 522-523, 530, 531, 541, 549-550, 554, 589, 597; carriers in, 531-532; checks to population in, 582-586; climatic effects of, 542-544, 561, 563, 567, 588-589, 614; climatic islands, 501-502, 526-527, 541, 557-558; climatic zones of altitude, 279, 524, 557-560; conquest of, 91, 522-523, 588-590, 593, 598; contrasted slopes of, 542-543; diversity of peoples and dialects in, 595-598; economy of level land in, 571-573; feuds in, 237, 591-593, 599; folded systems of, 536-538; haymaking in, 576-578; herdsmen and shepherds in high, 207, 558-560, 574-577; inaccessibility of, 45, 521-522, 589, 596, 598; isolation and protection of, 111, 234, 537, 562-563, 572-573, 587, 589-590, 592-593, 595, 600; isolation and retardation in, 113, 530, 591, 599-600; isolation and survivals in, 45, 94-95, 159, 442, 595, 597-600; marauding peoples of, 235, 553-554, 586-591, 599; mental and moral qualities of people of, 19-20, 23, 161, 590, 592, 593, 599-600; overpopulation and emigration from, 579-582, 585-586; passes of, see Passes; pastures and stock-raising in, 207, 541, 558-560, 573-576; places of asylum, 74, 94, 113, 160-161, 272-273, 437, 543; political dismemberment in, 17, 523, 589-591, 593-595, 597, 599; routes across, 527-529, 535-541; sparsity of population in, 152, 270, 521-522, 526-527, 558-560, 563-565; states of, 133, 141, 143, 233, 523, 536, 554, 588, 590-595, 598; transmontane trade of, 528-531, 547-548, 551-554; valleys of, see Valleys; waterpower in, 70, 527, 579; winter industries in, 578-579. See also Piedmonts
Mozambique, 84, 157, 309; Channel, 423
Mühlhausen, 540
Mungo River, 277
Munich, 528, 542
Murchison Range, 527, 570
Murghab River, 162, 345, 357
Murman Coast, 207. See also Pomors
Murmese tribes, 584
Murray Bay, 92
Murray River, 382
Murzuk oasis, 152, 502
Muscovite, see Russian
Muskingum River valley, 89
Mycenae, 250, 415
Myrmidons, 457
Mytilene, 252

Nagaris, 568, 594
Nahuatl Indians, 157
Nair tribe, 584
Namaqua tribes, 87, 116
Nanking, 347
Nan Shan Mts., 227
Nantes, 246; Edict of, 237, 439
Nao-chan Island, 165
Napoleon I, 5, 151, 194, 351, 401, 440-441, 540, 544, 546
Napoleon III, 542
Narbonne, 528, 547
Narrow Seas, 314-315
Narva River, 348
Nasamones, nomads, 506
Natal, 20, 208, 623, 626
Natchez District, 238
National dress, 479, 600

Nature-made highways, persistent effect of, 5-6, 539-541, 545-552. See also Rivers
Nauplia, 250
Navajo Indians, 116, 154, 330, 508
Navarre, 523
Navarrete, 545
Navigation, anthropo-geographical importance of, 293-295, 311, 332-333, 412, 422-424; methods of primitive, 87-88, 249-250; primitive boats of, 295-298; regions of early development in, 298-300; thalassic, 301-303, 305, 307, 313, 445; three geographic stages of, 284-285, 301-302, 313
Navy 67, 262, 331-332, 438
Naxos Island, 429, 446
Neapolitan, plain, dense population of, 477; temperament, 621-622
Negritos, scattered distribution in regions of survival, 146, 158-159, 165, 272, 274, 420, 442
Negro race, area in Africa, 105, 173, 358; in South America and the Antilles, 91, 106, 273; in the United States, 37, 114, 161, 481, 619-620, 625-626; skin of, 38-39
Negroid races, area and location of, 100, 391. See also Melanesia
Nejd Plateau, 501, 505, 507, 510, 514, 567
Neolithic Age, 415-416
Nepal, ethnic elements in, 102, 595-596; political independence of, 133, 233; Rajput expansion into, 543, 588; typical mountain environment in, 143, 532, 568, 575, 581
Netherlands, see Holland
Netze River, 370
Neufahrwasser, 246
Neutrality of the seas, 314-315
Nevada Desert, 63, 346
Neva River, 342, 348, 353
New Amsterdam, 5
New Britain, 456
New Brunswick, 238
New Caledonia, 446
New England, abolition in, 23-24; French Canadians in, 221; maritime development of, 15, 49, 261-262, 268, 331-332; maritime trade, 23, 264, 284, 618; rivers of, 342, 354; type of character, 26, 198, 619
Newfoundland, 95, 261, 275, 400; fisheries of, 163, 187, 269, 284, 331, 450
New Guinea, 65, 165, 200, 441, 465; chase in, 445, 456; large area of, 381, 383, 409, 443, 452; pile villages of, 321; trade of, 276, 425
New Hebrides Islands, 330, 456, 460, 463-464
New Ireland, 446
New Jersey, 260
Newmarket, 370
New Mexico, Indians of, 102, 116; Pueblo civilization of, 329, 508
New Orleans, location of, 3, 111, 347, 349, 350, 353, 369
Newport, Christopher, 337
New York Bay, 284, 354
New York City, 276, 613; location of, 347, 540, 548
New York State, and Lake Erie, 375; and the Mohawk depression, 5, 209, 540, 618; French Canadians in, 221; Iroquois of, 93, 209
New Zealand, area of, 172, 177, 201; English colonists in, 20-22, 106, 177; fauna of, 178, 441; insular history of, 6, 45, 433; Maoris of, 103, 177-178, 438, 464, 465
Nicaragua, 157, 546
Nicobar Islands, 159, 441
Niemen River, 191, 209, 272, 353
Niger River, 97, 276-277, 352, 367; flood-plain of, 325-326, 345, 491-492, 498; nomads in the valley of, 7, 109, 511, 586
Nigeria, 352, 373, 570
Nikolaievsk, 350
Nile River, as a highway, 140, 340, 345; craft of, 295-297; delta coast of, 260, 267, 297, 347, 372; flood-plain of, 23, 325, 328, 476; unity of valley of, 358, 397; valley conquered by nomads, 7, 109, 151, 489
Nilgiri Hills, 583-585, 616
Nineveh, 295, 588
Nisida Island, 440
Nizhni Novgorod, 619
Nogai Tartars, 500
Nomads, arid plains the homes of pastoral, 7, 48, 53, 63-64, 116, 137, 234, 483-486, 500, 509-510,

559, 615-616; arrested development of, 7, 63, 489, 507, 509-511, 515, 615; as disseminators of civilization, 193, 510; conquests of, 118, 137-138, 185, 198; conquest of neighboring agricultural lowlands, 7, 89, 109-110, 137, 142, 486-487, 490-492, 494-496, 509; decentralization of small pastoral groups, 58, 496-497, 510; flocks and herds of, 26, 63, 485; forms of defense against, 234-235, 492-493; geographic distribution of, see Deserts and Steppes; historical importance of pastoral, 486-487; industries of, 507-509; land bond among, 57-58, 60-61, 65, 80-81; limited agriculture of, 57, 62, 107, 500-502; marauders, 57, 234-235, 362, 485, 487, 490-492, 495, 506, 510; market towns of, 137, 505-507; mental and moral qualities of, 1-2, 510; military organization of, 58, 89, 493-494, 497; mobility of, 487-488, 496-497; physical characteristics of, 46, 504; political consolidation of territory by, 104, 198, 486-487, 492, 494-496, 500, 512-514; religion of, 1-2, 27, 498, 506, 511-514, 599-600; resistance to conquest by, 498-499; restriction of area of, 64, 499-500; scant diet of, 46, 61, 490, 503-504; seasonal migration of, 77, 85, 489, 494, 541; trade of, 97, 104, 504-505; water supply of, 57, 489, 490, 493, 497-499, 501-503, 526
No Man's Land, 209, 217-218
Nordenskiold, 207
Nordland Province, 330
Norfolk, England, 370; Virginia, 246
Norfolk Isle, 439-440
Noricum, 85
Norse, in Britain, 83, 89, 134, 176, 184, 187, 304, 422; in France, 46, 187, 338, 404; in Greenland, 88, 120, 249, 300-302, 386-387, 422, 436, 633-634; in Iceland, 88; in Sicily, 427-428
North Africa, and Spain, 28, 86-87, 110, 132, 151, 405, 496; and Sicily, 409; early historical activity of, 187, 272, 309, 330; ethnic elements in, 39, 97, 104, 105, 121-122, 132, 192, 418; French in, 499; Vandals in, 83, 86, 87. See also Spain
North America, animals and plants of, 64, 434, 485; area of, 169, 179, 310; coast distribution of early colonies in, 146, 210, 245-246, 273; coastline, 302-303, 400; contrast of Atlantic and Pacific slopes in native civilization, 329-330, 388-390; 394-396, Cordilleras as barriers in, 394, 396; Pacific coast of, 262-263, 277, 280, 285, 614; rivers of, 214, 337-338, 343, 354; structure of, 343, 394-395; Temperate Zone of, 614, 616; vicinal location about Bering Sea, 381, 384-385, 388-389
North Atlantic Ocean, 302, 311
North Atlantic States, of the U. S., 275
North Cape, 618
North Carolina, 45, 236, 371; Indians of, 93, 116, 154, 155
North German lowland, 4, 324, 370, 478-480, 482, 558
North Sea, 259-260, 311, 421-422, 473; as an enclosed sea, 130, 134, 137, 273, 282, 302, 304, 311; fisheries of, 331-332; rivers of, 108, 340; trading towns of, 150, 244-245, 250
Northwest Coast tribes of America, see British Columbia and Alaska
Northwest Passage, 337
Northwest Territory, 179
Norway, agriculture in, 574, 576-577, 631; and Swedish boundary, 215, 218-219; coasts and maritime development in, 71, 141, 149, 254, 255, 257, 261-262, 264, 268, 302, 320, 340, 375; distribution of population in, 270, 330, 560, 564; emigration and medieval colonization from, 67, 123, 275, 582; fisheries in, 330; mountain life in, 560, 574-576, 579, 600. See also Norse
Nova Scotia, 74, 400, 455
Novgorod, 43, 136, 304, 342, 348
Nubian Desert, 215, 358, 489, 498, 506, 509
Nukufolau, 463
Numidian nomads, 492
Nuremberg, 544

Oases, 43, 152-153, 163, 500-502
Oberalp Pass, 534-535
Obi River, 512, 625
Ocean Currents, 249, 389, 613. See also Gulf Stream, Kuro Siwa, and Equatorial Current
Oceanica, 289-290, 299, 455, 462-464
Oceanic period in history, 282-283, 284-285. See Atlantic
Oceans and Seas, as barriers, 21, 242, 244, 293, 298, 332-333; as factor in man's unity, 292-294, 300; historical evolution of, 13-14, 260, 282-285, 311; neutrality of, 314-315; relation of to universal history, 82, 293-295, 311; size of, 312-315; size of drainage basins, 338-340. See also Sea basins
Octodurus, 536
Oder River, 191, 208, 260
Odessa, 347
Oesel Island, 429
Ohio, Indians of, 55, 89, 257
Ohio River, highway of colonial expansion, 44, 162, 343-344, 349-350; traffic on, 201, 349-350
Oikoumene, 171
Oise River, 367
Oka River, 348
Okhotsk Sea, 305, 308, 410
Oloron, 547
Oman, location of, 269; maritime development of, 193, 270, 309; maritime trade of, 164, 268, 284; terrace agriculture in, 567
Omsk, 634
Onas Indians, 178
Onega River, 348
Ontario Province, 238
Orange Free State, 140, 184
Orange River, 116, 346
Ordos Country, 227, 499
Oregon, movement to, 4-5, 60, 98, 219, 530; Indian tribes of, 102, 281, 395
Oregon Trail, 199
Orient, Cape Horn route to, 427; Mediterranean and Red Sea route to, 131-132, 270, 308-310, 400; trade of Europe with, 82, 131, 149, 258, 276, 301, 309, 343, 348
Oriental rugs, 507-508
Origins, geographical, 121-125
Orinoco River, Arawaks and Caribs on, 256, 338; navigable highway, 337, 341, 352; pile villages on, 320
Orkney Islands, 264, 449
Orleans, in France, 338, 354
Orochones, of Siberia, 78, 418, 486, 488
Orontes Valley, 534-535
Ossetes tribe, 539, 554
Ostia, 13, 283
Ostrogoths, 85, 97
Ostyaks, 388, 625
Oxford, 372, 413
Oxus River, 346, 374, 512, 529, 538; valley of, 541
Ozark Plateau, 477, 522

Pacific Coast States (of U. S.), 4-5, 232, 276, 346; fragmentary Indian stocks in, 154, 177
Pacific Ocean, ethnic and cultural affinities of in North America, 388-390, 395-396; geographic condition for intercourse between Asia and North America, 387-389; island-strewn surface of, 200, 266, 387-389, 447-448, 460; late historical importance of, 311; migrations in, 107, 299-300, 460; mountain-bound coasts of, 256-257, 280, 614; nautical efficiency in, 298-300; size of, 313, 340. See also Bering Sea and Polynesia
Paghman Mts., 538
Pak, 305
Palatinate, 237
Palembang, 321
Palermo, 428, 509
Palestine, 5, 16, 111, 122, 124, 151; Jewish conquest of, 26, 47, 266, 512; nomad invasion of, 489, 547. See also Judea
Palk Strait, 437
Palmyra, 535
Pamir, dome of, 110, 568, 589; passes of, 529, 550; pastures of, 113, 489, 541-542, 587
Pamlico Sound, 260
Pampas of South America, 483, 485
Pamplona, 545
Panama, Canal, 130, 188, 286, 313, 356, 431; Isthmus of, 130, 426, 546
Pandateria Island, 440
Pannonia, 85, 86, 108
Pantellaria Island, 440, 451, 457
Pantiloff Canal, 246

Papago Indians, 489
Papuans, 65, 382; area of, 424, 428. See also Melanesia
Paraguay, 106, 364; River, 36, 338
Parana River, 100
Paris, 338, 367; Basin, 480
Parisii, 361, 367-368
Parkman, Francis, 366
Paros, 459
Parret River marshes, 372
Pass of Belfort, 539-540, 547-549
Dariel, 523, 528, 539, 546-547, 554
Derbent, 546
Giovi, 528
Roncesvalles, 545
Thermopylae, 546
Passes, great importance of, 283, 474, 521, 528-529, 535-537, 544; geographic factors in historical importance of, 474, 538-541, 546-548; markets and cities of, 207-208, 551-552; object of conquest, 97, 162, 522-523, 552-554, 589, 592; of intermarine mountains, 547; peoples of, 97, 130, 522-523, 545, 552-554, 586, 590-591; persistent influence of, 5, 545-547; routes over, 536-541; valley approaches to, 537-539, 547-549, 554; valley settlements below, 549-552
Passiorthal, 598
Patagonia, 64, 65, 82, 178, 482
Pathans, 402, 587
Pauillac, 246
Paumota Islands, 389, 446, 449, 455
Paunch Indians, 98
Payaguas Indians, 36
Payne, Edward John, 396
Pearl River, 229
Peartree Pass, 553
Pegue, 250
Peking, 352, 357, 509, 578, 613
Pelasgians, 274
Pelew Islands, 446, 448, 456
Pellice Valley, 222, 600
Peloponnesian War, 78, 429
Peloponnesus, 3, 111, 287; peninsular isolation of, 397-398, 400-402, 404
Pelusium, 492
Pemba Island, 252, 265, 268, 275, 431
Penal colonies, see Boundaries and Islands
Peninsular War, 545, 547
Peninsulas, as continental articulations, 254, 396-397; contrasted effect of large and small, 397-399; contrasted geographic conditions in mainland and, 400-401; continental base of, 179-180, 400-403; importance of location of, 397, 400; intercontinental location of, 405-406; isolation of extremities of, 403-404; naturally defined location and differentiation in, 133, 138, 214, 309, 400-401; places of survival and asylum, 74, 273-274, 403-404; similarity to islands, 409-410; unification of race in, 404
Pennine Mts., 527
Pennsylvania, 89, 199, 232, 375
Pensa, 493
Perche, 480
Pergamus, 250
Pericles, 67
Perim Island, 154
Periphery, see Location
Pernambuco, 153
Perry, Oliver H., 69, 540
Persens, 327
Persia, and Afghanistan boundary, 363; arid climate of, 296, 483, 503, 507-508; highlands of, 402, 528, 595; irrigation and civilization in, 329, 509; location of, 136, 145; nomad incursion into, 104, 491-492; Russian influence in, 142-143, 356-357
Persian Gulf, 267, 310; Bahrein Islands in, 266, 431, 454; route to the Orient, 132, 254, 269, 337, 425; Russian expansion towards, 142-143, 151, 162, 285
Persian Empire, 231, 319, 383
Peru, climate of, 329, 561, 619, 635; desert coasts of, 37, 267, 561; early civilization in intermontane basins of, 134, 182, 329, 390, 392, 561, 635; highland location of, 476, 611; highland pastures of, 64, 575; Inca empire in, 80, 91, 123, 269; plateau population of, 106, 561; Spanish in, 84, 98, 176; terrace agriculture in, 560, 571
Peruvian Current, 389, 613
Peshawar, 528, 538
Petchora River, 348
Peter the Great, 42
Petra, 507

Petrie, Flinders, 84
Petropavlovsk, 305
Petrovsk, 547
Pharaohs, 132, 358
Philadelphia, 5, 347
Philippine Islands, agriculture in, 456, 570; American acquisition of, 107, 109, 198, 285; Chinese in, 30, 104, 268, 307; density of population in, 452; distribution of wild and civilized tribes in, 145-146, 272, 281; Moros on the coasts of, 88, 279, 459; mountain relief of, 446; Negritos of, 158, 272, 391, 442; part of the Malay Archipelago, 318, 382. See also Luzon, Mindanao, etc.
Philistia, 266, 277, 512, 514
Phoenicia, coast colonies of, 96, 164, 187, 196, 250-252, 274, 281; fisheries of, 3, 331; isthmian location of, 131-132; maritime location and expansion of, 15, 107, 123, 132, 162, 191, 264, 295, 302, 427; maritime trade of, 268, 297, 303; previous habitat of people of, 266; small, naturally defined location of, 12, 130, 197, 257, 268-269, 283, 310
Phoenician Sea, 311
Picts, 436
Pidgin English, 276
Piedmont, Italy, 39, 222, 429, 581
Piedmonts, as boundary zones, 52, 228, 525-526, 530, 596, 599; colonial frontiers in, 530-531; density of population in, 526-527, 530, 560, 565; industrial development in, 70, 481, 527, 530, 558, 579; roads and railroads along, 5-6, 501, 527-528; towns and cities of, 527-530, 547, 558; zones of vegetation and settlement in arid lands, 497, 501-502, 529, 541, 558-559, 575
Pie-ho River canals, 352
Pigmentation, 38-40, 620
Pile villages, geographical distribution of ancient, 56, 318-319; of modern, 266, 319-322, 366; protection and food as motives for, 94, 318-319, 321-322, 374; structure of, 319-321
Pilgrimages, 99-100, 185
Pillars of Hercules, 249
Pindus Range, 535, 546
Piraeus, 250, 283, 285, 304
Piratical descents, 78, 89, 187, 250-252, 298, 314
Pisa, 283-284, 429
Pithecanthropus, 635
Pittsburg, 349, 528
Pizarro, 187
Place names, 74-75, 164-165
Plains, 476-483; accessibility of, 74, 172, 259; as highways, 5, 44; conditions for expansion in, 29, 348; historical movement in, 133, 183; political and ethnic unity of, 46, 140. See also Lowlands and Steppes
Plant life, 63-64, 112, 131-132, 178-179, 446, 609. See also Biogeography
Plataea Island, 454
Plato, 195-196
Platte River, 155, 346, 530
Pliny, 296, 361, 490
Plymouth (England) 149, 406
Po River, 326, 360, 362, 554
Po Valley, base of Apennine Peninsula, 66, 180, 401-403, 542; ethnic amalgamation in, 19, 121, 164, 222, 543; mountain routes to, 283, 522, 539, 542; naturally defined location of, 397; population of, 477; Swiss expansion to, 543
Pogon, 250
Poland, central location of, 135-136, 138-139, 143; German expansion into, 192, 224, 230; Jews in, 124; level plains of, 4, 234-235, 478; Russian expansion into, 119, 151, 155, 181, 189
Political geography, 51-52
Political policy, geographic element in, 51-52, 195-200, 339, 544; parties, 23, 52, 161
Polyandry, geographical distribution of, 38, 67, 462, 504, 583-585
Polygamy, 504, 583-584
Polynesia, agriculture in, 56, 417, 569; checks to population in, 67, 463, 584; density of population in, 447-448; effects of maritime environment, 40, 41, 299-300, 390; migrations in, 77, 87 88, 103, 107, 299, 460; Malay element in, 384, 459; North America and, 389-390, 395-396; paucity of animals in, 434, 445-446, 465. See also Oceanica and Pacific Ocean

Pomerania, 331
Pomona Island, 449
Pomors, 332
Pompey, 313, 546
Pondicherry, 165
Ponza Isles, 440, 451, 457
Popham's colony, 253
Popocatepetl, mines of, 610
Poretta Pass, 527
Portages, 354
Port Arthur, 129, 176, 195
Port de Canfranc, 547, 550
Port Glasgow, 247
Port Moresby, 321
Porto-Rico, 338, 429, 431, 438, 452
Port Royal (N. S.), 455
Port Said, 276
Portugal, 74, 86, 580, 630; and North Africa, 132, 153, 405; area and location of, 28-29, 149, 151, 231, 284, 476; colonial expansion of, 51, 123, 140, 193; colony in Brazil, 107, 273, 277, 406; Indian Empire of, 6, 96, 138, 431; maritime development and expansion of, 17, 97, 250, 257, 271, 285, 300-301, 432; relief of, 478; trading stations in East Africa, 196, 265, 269, 310
Poti, 547
Potomac River, 87
Potosi mines, 342
Powell, Major J. W., linguistic map by, 54-55, 78, 394
Prairies, 44, 482
Pretoria, 199
Pribiloff Islands, 439
Primitive societies, geographical basis of, 53-65; scattered location of, 80, 154-155
Procida Island, 440, 453, 457
Progress, theory of, 68-69; geographic checks to, 47, 62-64, 212, 609
Promontories, 249, 250, 397
Propontis, 459
Protection, see Isolation
Provence, 19, 619; speech of, 222
Prussia, eastern border of, 94, 223-224; large area of, 179, 482; Vandal home in, 77, 86
Pruth River, 224, 565
Psammeticus, 281
Pskof, 342, 348
Pueblo Indians, 94, 395, 572; irrigation and civilization among, 18, 329.
Puget Sound, 154
Punic Wars, 96, 314
Punjab, 359, 543, 585; location of, 104, 633; pass routes to, 528, 538, 539, 551-552; trade of, 528, 554
Puritans, in America, 21, 111, 253
Purus River, 38, 531
Pygmy tribes of Africa, 105, 117, 158
Pyrenees Mts., 19, 303, 582, 592; as barrier boundary, 97, 214, 401, 404, 535, 537; passes of, 523, 528, 545, 547, 550; piedmont towns of, 527

Quakers in America, 111
Quebec, city of, 247, 337, 347, 349, 364, 368; as fur market, 47, 619; Province of, 221
Queen Charlotte Archipelago, 417, 419
Quichua Indians, 34, 101

Race factor in history, 2, 75, 306-308, 434, 437-438
Races, and continents, 76, 131, 390-391; distribution of, 100-106, 112, 171; geographical origin of, 121-125; isolation and divergence of, 287, 385, 392-393; kinship and vicinal location of, 304-305, 384-385, 392; permanent and vanishing, 118-120, 170-172; stratification of, 74, 106, 114, 160, 271-274; unity of human, 30, 33, 121, 171-172, 292, 333
Radnor County, 564
Rafts, 295-296, 349, 362
Railroads, and mountain passes, 545, 547-549; and rivers, 354-356; in arid regions, 356, 498; colonial lands, 200-201
Rainfall, effect of mountains upon, 15, 160, 270, 501-502, 526-527, 542-544, 558, 563, 609-610; effect of winds upon, 109, 270, 613; map of, 484; importance of, 614-615; nomad migration and, 489-490
Rainy Lake, 348
Rajputana Desert, 6, 104, 159, 208
Rajputs, 79, 526, 543, 596
Raleigh, Sir Walter, 253, 406
Ralick Islands, 299
Rangoon, 347
Ratisbon, 544

Ratzel, Friedrich, 87, 305
Ravenna, 283, 286
Rechabites, 514
Reclamation of land, in river floodplains, 325-327; on low coasts and deltas, 107, 245, 323-325; social gain by, 327-328
Red River, (La.), 155
Red River Valley (Da.), 615
Red Sea, as an enclosed sea, 270, 280, 282, 305, 386; desert coasts of, 267, 310, 510; trade route of, 30, 132, 140, 267, 270
Reform Bill in England, 52
Refuges, 74, 93-95, 113, 117-118, 158, 160, 178, 273-274, 280-281, 403-404, 409-410, 438-439, 595
Reindeer, 305, 625; moss, 63, 609, 624; tribes, 41, 63, 152, 207, 330, 485-486, 624-625
Relativity of geographic advantages, 12-14, 433-434, 436, 444, 561-562
Relief, continental, 474; contrasted and complementary, 112-113, 160, 475-477, 479, 557; distribution of, 475, 477; graded forms of, 523-524; politico-economic value of varied, 112-113, 140, 477-479, 557-558, 619; submarine, 473; zones of, see Zones of altitude
Religions, and geographic conditions, 41, 436, 526, 581-584, 586, 588, 601; area and differentiation of, 122, 175, 228, 230, 414, 418, 419; geographic stamp of, 27, 185, 514, 599; of deserts and steppes, 1-2, 27, 47, 498, 506, 511-514, 599-600. See also Historical Movement, Missionaries, and Mohammedanism
Remoteness, 298, 307, 380, 564; and divergence, 173, 384-385; of boundary regions from center, 228-234
Reunion, 451, 453, 627
Reuss Valley, 358, 373, 534, 537
Revel, 272
Revolution, the American, 130, 209, 237, 331, 540, 554; French, 209, 404
Rewa Island, 444
Rhaetia, 91-92, 222, 522
Rhine River, as boundary, 230, 357, 362; cities, 124, 342; German expansion to, 110, 116, 155-156, 357; highway, 130, 351-352; Hinter. 549; Hither, 534, 549, 597-598; mouth of, 108, 117, 340, 353; valley of, 111, 542, 566; valley of upper, 359, 373, 535, 537, 543
Rhine-Rhone highway, 342, 539-540, 549
Rhodes, 417, 427, 453
Rhone River, 44, 338; density of population in valley of, 65, 564; valley route of, 27, 124, 532, 540; valley and trans-Alpine routes, 523; valley of upper, 359, 360, 373, 524, 534, 536, 537, 549-550. See also Valais
Richelieu River, 366
Riesen Mts., 360
Riga, 339, 479
Rio Cauco, 259
de Janeiro, 454, 617
Grande, as Mexico-U.S. boundary, 220-221, 363; valley of, 154, 329
Negro, 482
Ripley, William Z., 94
Ritter, Carl, 30, 197, 255-256, 475
Rivers, and railroads, 341, 354-356; as boundaries, 5, 58, 66, 360-363; as coast articulations, 245-247, 260, 262, 281, 340-342; canal extensions of, 246-247, 352-354; dense populations in lowlands of, 20, 322-323, 325-327, 401-403; downstream traffic and expansion on, 336, 339, 348-350; fluvial settlements and peoples, 81, 108, 157, 210, 322-323, 358, 359, 363, 366-367; head of navigation on, 245-247, 337-338, 341; highways of expansion, 44, 82, 98, 100-101, 162, 210, 212, 338, 339, 342-346, 348-350, 597; highways of trade, 47, 339-345, 349-352, 367, 375; hydrographic centers of, 348-349, 353-354; importance in big countries, 342-343; importance of mouths, 246-247, 323, 340, 342, 347-352, 369-370; influence upon historical importance of oceans and seas, 338-340; intermediaries between land and sea, 245-247, 259-260, 265, 336-338, 341-342; international highways, 130, 350-352; oases in arid lands, 43, 345-346, 356-357, 500-502; peninsulas and islands of, 368-370; riparian. villages

on, 56, 364-366; routes in arid lands, 345-347, 374; tidal, 259, 337, 347; unity of valley and system of, 356-360, 593. See also Reclamation of land
Riviera, 566
Roads, and rivers, 354; in mountain conquest, 523, 525, 531, 532, 539, 589-590
Roanoke Island, 253
Rocky Mts., barrier boundary, 4, 66, 190, 340, 544; deserts of, 35, 77; piedmont of, 344, 346, 530; vacant districts in, 522
Romance languages, 74, 92, 122, 420
Romansch dialects, 222, 598
Rome, city, area and location of, 13, 26, 185, 357; goal of pilgrimages, 99, 111, 185
Rome, Republic and Empire, area of, 74, 191; conquest of Alpine routes, 522-523, 525, 539, 553; decline of, 17, 76, 230; expansion of, 45, 52, 66, 74, 81, 82, 86, 91-92, 96, 97, 132, 190-192, 194, 200, 545-546; Germanic invasions of, 85, 86, 89, 111, 540; Mediterranean location of, 30, 136, 138, 148-149, 515. See also Italy
Romney Marsh, 370
Rostock, 284
Rotterdam, 149, 246, 347, 351
Rouen, 246
Roumania, language of, 74, 92; location at Danube mouth, 130, 351-352; vicinal location to Russia, 94, 124, 224
Roumanians, 45, 136, 361; mountain area of, 526, 533
Rovereto, 542
Rovuma River, 253
Rubruquis, William de, 409, 509
Rufigi River, 260
Ruhr River, 351
Ruins, in arid lands, 502-503
Russian Empire, area of, 12, 119, 129, 134, 175, 189, 194-195, 342; Asiatic frontier of, 76-77, 110, 129, 138, 144, 148, 226, 348, 383; central location of, 138, 140, 141, 143, 144, 151, 185; climatic effects in, 14, 344, 484, 619, 621, 624, 630-632; conquest of the Caucasus by, 523, 525, 539, 597; designs upon the Mediterranean and Balkan Peninsula, 180, 402; designs upon the Persian Gulf and Indian Ocean, 142-143, 188, 542, 544, 547; ethnic borders of, 224-226; ethnic elements in, 121, 124, 159, 179, 272, 304; expansion of, 28-29, 114, 119, 135, 140, 158, 186, 209; expansion into Asia, 66, 79, 97, 106, 110, 142-143, 148, 151, 154, 157, 162, 163, 189, 192-194, 198, 211, 229, 231, 235, 271, 305, 312, 370, 428, 482, 498; interplay of geographic factors in, 14, 129; limited coasts of, 14, 70-71, 141, 259, 340; maritime expansion in Bering Sea, 29, 305; monotonous relief of, 14, 70, 112, 117, 393, 478-480, 482; Norwegian boundary of, 215; Persian boundary of, 357; river lines of expansion in, 44, 344-345, 348; rivers and canals of, 339, 342, 353-354; steppe nomads of, 234-235, 491-493, 500, 505-506, 509; steppe frontier police, 133, 234, 488, 492-493. See also Kirghis, Kalmucks, Tartars, and Siberia

Saar River, 351
Sabaeans, 270, 567
Sabine River, 229
Sacramento Valley, 545
Sacred Promontory, 249, 303
Sahara Desert, 115, 345, 483, 497, 501-503, 514; barrier between Negro and Hamitic Africa, 392; caravan routes across, 97, 152, 346, 491-492, 506, 511; French expansion into, 157, 163, 212, 498-499; nomads of, 113, 362, 489, 491, 504, 558-559, 615-616; nomadic incursions from, 7, 89, 104, 118, 491-492, 495
St. Ambrose Island, 389
St. Bernard Pass, Great, 524, 528, 536, 546, 550, 553
St. Bernard Pass, Little, 536, 550, 553
St. Croix River, 454
St. Etienne, 545
St. Gall, Canton of, 527, 594
St. Gotthard Pass, 162, 528, 537, 546, 548-550
St. Helena Island, 179, 381, 432, 440-441, 446
St. Joseph Island, 368
St. Lawrence Island, 382, 424
St. Lawrence River, 155, 354, 368;

highway of, 44, 134, 187, 212, 338, 343, 618; riparian villages of, 264-266; tidal course of 246, 337-338; valley, 360
St. Louis (Senegal), 370
St. Moritz, 550
St. Nazaire, 246
St. Petersberg, 42, 175, 224, 246, 254, 479, 614
St. Petersberg Government, 632
St. Pierre Island, 430, 450
St. Thomas Island, 426, 453
Sais, 372
Sakalavas, 105, 423
Sakhalin, Island of, 110, 134, 174, 305, 381, 388, 410, 418, 428, 441-442, 450
Saladin, 512
Salassi tribe, 356, 553
Saldanha Bay, 267
Salem, Mass., 253
Salina Island, 451
Salmon River, 54
Salt, in Saharan trade, 152, 505
Salt River Valley, 329
Salwin River, 259, 320
Salyes tribe, 523
Salzach River, 358, 361
Salzburg, 358, 565, 573
Samal Laut Malays, 459
Samara Province, 235
Samaria, 91, 346, 545
Samarkand, 491, 507, 529
Sambos, 106
Samnite Confederacy, 588, 595
Samoan Islands, 382, 448, 455, 460, 463
Samos Island, 123, 417, 429, 459; dense population of, 124, 453
Samothrace Island, 454
Samoyedes, Arctic environment of, 35-36, 41, 172, 207, 486, 624
Sanaa, 567
San Bernadino Pass, 537, 549
San Diego Bay, 263
San Domingo, 178
San Fernando, 337
San Francisco, 548; Bay, 263, 545
San Francisco River, 38
San Joaquin Valley, 499
San Sebastian, 547
Sanskrit, 268, 371
Santa Catharina, state of, 628
Santa Lucia Bay, 140
Santals, 159, 596
San Thome, 153
Santos, 617
Saône River, 353, 373, 549, 562
Sapporo, 272
Saracens, civilization of, 110, 496, 508, 567; in Spain, 28, 46, 110, 132, 231, 303, 405, 496, 547; maritime expansion of, 285, 303, 429, 508; nomadic conquests of, 7, 79, 84, 104, 198, 305, 496, 546. See also Arabs and Moors
Saragossa, 547
Sardinia, 35, 145, 404, 409, 420, 422, 429, 440, 442-443, 446, 447
Sargon, 91
Sark River, 236
Saronic Gulf, 250, 425
Sasar, 552
Saskatchewan River, 98, 154-155, 344
Satpura Range, 538, 587
Save River, 85, 553
Savoy, mountain environment in, 19, 130, 220-222, 523, 554, 581
Saxons, early maritime expansion of, 17, 46, 48, 85, 176, 214-215, 273, 279
Saxony, 65, 478, 527
Scandinavian Peninsula, climate of, 144, 554, 612, 630; location of, 122, 133, 399-401; mountains of, 70, 215, 257, 522, 537, 544, 549. See also Norway and Sweden
Schako Pass, 552
Scheldt River, 286, 324, 338, 340, 342, 352, 353
Schleswig-Holstein, 229, 260, 351, 420
Schlusselberg prison, 441
Schmaedel, von, 39
Schuylkill River, 370
Schweinfurth, G., 158, 296
Schwyz, Canton of, 374, 527
Scilly Islands, 443, 450
Scioto River, 357; valley of, 89
Scotland, border wars of, 233, 236, 435; coasts of, 184, 262, 342; dismembered relief and history of, 475; Highlands of, 184, 421, 475, 563-564, 581-582, 587, 592; Irish in, 74, 298, 436; Teutonic elements in lowlands and coasts of, 184, 304, 479, 547. See also Britain
Scythian nomads, 7, 142, 402, 488, 493, 536
Sea, as barrier, 43-44, 242, 244, 298; as boundary, 139-141, 211-215, 257, 275, 418, 421, 430, 434; expansion from interior toward,

110, 111, 123, 132, 140-143, 162, 193, 263, 271
Seas, enclosed, early historical importance of, 13-14, 150, 256, 282-283, 285, 311-312; early navigation in, 300-302, 305, 307, 389; ethnic and cultural assimilation in, 136-137, 303-308; Indian Ocean as, 308-310; limitation of small area of, 310-312, 339; small area and neutrality of, 314; zonal and continental location of, 304, 308, 339, 340
Seasons, and migration, 206-207, 486, 489-490, 552, 574-575; effect of contrasted, 629; effect of long winters, 626, 629-633; length of, 629-631, 633; wet and dry, 615
Seduni tribe, 553
Segre River Valley, 547
Seine River, 338, 353-354, 361, 367; islands of, 368; lowlands of, 482, 542
Sella, 163
Seminole Indians, 93, 371-372
Semipalatinsk Province, 489
Semites, map, 105; expansion into Africa, 104-105, 117, 155, 305; nomads of deserts and steppes, 7, 402, 511
Seneca Indians, 89
Senegal River, 157, 193, 267, 278, 280, 370, 386
Senegambia, 512
Sennacherib, 5
Sennar, 65, 358
Sennenwirthschaft, 574-575
Septimer Pass, 537
Sequani tribe, 369, 562
Serbo-Croatians, 361
Seriphos Island, 440
Servia, central location, 143
Sesia River, 548
Sesostris, 492
Sette Communi, 222
Severn River, 369
Seville, 246
Seychelles Islands, 451
Shahidula, 208, 550
Shajok River, 295
Shamyl, 590
Shanghai, 341, 347
Shangtung Peninsula, 322, 399, 410, 581
Shannon River, 361
Shansi Province, 410
Shanty-boat people, 323
Shari River, 481
Shawnee Indians, 65, 81, 89, 93, 357, 562
Shelter Island, 443
Shenandoah Valley, 534
Shensi Province, 235, 530-531, 569, 572-573
Shetland Islands, 35, 137, 264, 420, 432, 449-450
Shigatze, 531
Shimonoseki treaty, 176
Shintoism, 414
Ships, size of, 245-246
Shiraz, 507
Shire River, pile villages, 320
Shoshone Indians, 77, 296, 382; linguistic stock of, 102, 329
Shrewsbury, 369
Shur, Desert of, 507
Siam, 30, 308
Siberia, Arctic, 63, 65, 172, 249, 624-625, 631; colonial frontier of, 79, 194, 211, 213, 232, 235; fur trade in, 10, 97, 619, 625; native stock of, 388-389, 418; reindeer tribes of, 305, 486; rivers of, 44, 162, 344-345, 350; Russian expansion in, 29, 106, 151, 192-193, 229; Russian settlements in, 154, 157
Sicily, 161, 346, 401, 429, 442-443; climate, 453, 621-622; Greek colonies in, 265, 459; Phœnician colonies in, 187, 250; thalassic location, 382, 409, 427-428
Sidon, 250
Siebenbürgen piedmont, 526
Sierra Leone, 276, 280
Sierra Madre, Luzon, 274
Sierra Nevada, 95, 474, 544, 545
Sierre, 360, 366
Si Fan tribes, 227, 587-588
Si-kiang, 322, 366
Sikkim, 523, 531-532, 551, 584
Silesia, 224, 527
Simbirsk, 493
Simla, 568
Simplon Pass, 524, 528, 537, 546, 548-549
Sinai Peninsula, 255; mines of, 477
Sind, 538, 587; piedmont boundary of, 359-360, 525
Singan, 530-531
Singapore, 104, 269, 308, 425-426, 453
Singhalese, 104, 425, 437
Sinope, 252

Sioux, 82, 237; migrations of, 102, 116; scattered tribes of, 93, 155
Sir-Daria, 346, 529, 550
Sirmur, 584
Sistan Lake, 295, 363; basin of, 503
Sitka, 613
Siwa oasis, 163
Skiathos, 461
Skopelos, 461
Slavery, area and climate as factors in American, 619-622; ethnic intermingling through, 90-91; negro in America, 11, 80, 90-91, 120, 161, 179, 201, 286
Slavonic dialects in Alps, 598
Slavs, area of, 179, 180, 189; expansion in Russia of, 348; expansion into the Balkan Peninsula, 180, 273, 402, 404; expansion across the Baltic plain, 4, 46, 106, 371, 479, 532; expansion up the Danube Valley, 4, 45, 85, 146, 186, 532; German-Slav boundary, 136, 155, 222-224, 237, 479, 579; withdrawal of northern, 92, 176
Slovaks, 136
Smith's Sound, 624
Smolensk, 339, 348
Smyrna, 276
Snake Indians 35, 54, 296
Society, and agriculture, 61-63; land basis of, 53-60, 64-66, 215-219; scattered location of primitive, 80, 154-155; small area of primitive, 181-183, 185-186, 195, 197. See also Area and State
Society Islands, 444, 455
Sociology, and geography, 51-52, 54, 511
Sofala, 157, 275, 310
Sogne Fiord, 340, 549
Soils, agriculture and, 63, 212, 261-262; differentiation of population due to, 112, 480-481, 525; effects of barren, 35, 47, 54, 63, 609; effects of fertile, 44, 58, 152
Sokna, 152, 163
Sokoto, 140, 492
Sokotra, 154, 425
Solomon Islands, 444, 448, 456, 463
Solon, 161
Somali Coast, 269
Somme River, 478
Somnos tribe, 367
Songhoi villages, 326
Soult, Marshall, 547
South Africa, as colonial territory, 20-22, 199-200, 355; climate of, 106, 297-298, 483, 616, 622-623; native tribes of, 55, 93, 106, 116, 119, 137, 158, 160, 176, 584, 623; pastoral Boers of, 135, 211, 232, 488, 490, 497, 510; peripheral location of, 17-18, 48, 173, 298, 385, 392, 623; relief of, 524; west coast of, 263, 267, 346
South America, 64, 219-220, 342, 485; distribution of immigration in, 106, 619; native race of, 37, 100-101, 178, 272; peninsula extremity of, 73, 298, 385, 392; relief of, 37, 394, 396, 475, 558; rivers of, 337, 341, 355; river tribes of, 56, 108, 320; temperate belt of, 106, 179, 616, 623; vicinal location to North America, 392. See also Americas
Southampton, 264; Water, 273
South Atlantic States, 480-481, 619
South Carolina, 47, 92, 93; Indians of, 93, 102, 562
Southern States, foreign elements in coast belt of, 275-276; negro labor in, 114, 619 620; plantation system in, 616, 622; slavery in, 11, 80, 179, 286; Southerners, 619, 622
South Seas, world highway of, 311-312
Spain, American Empire of, 52, 84, 96, 107, 111, 114, 119, 176, 342, 349 350, 430, 431; arid climate of, 627, 630; coasts of, 28, 258, 261; density of population in, 447-448; ethnic stocks in, 86, 92; intercontinental location of, 28-29, 110, 132, 151, 405, 537; naturally defined location of, 133, 213; maritime development of, 28-29, 300-301; peripheral location of, 49, 131, 141; Phoenicians in, 187, 250, 303; Pyrenean boundary of, 97, 401, 404, 535; Saracens in, 28, 46, 79, 84, 101, 496; terrace agriculture in, 26, 567. See also Iberian Peninsula
Spanish Trail, 346

Sparta, 22, 430
Speke, J. H., 216
Spencer, Herbert, 34, 59, 60, 584
Sphere of influence, 78, 142
Spina, 283
Spiti, 584
Spitzbergen, 611
Splügen Pass, 537, 550
Sporades Islands, 461
Spree River, 370, 371; forest, 482
Srinagar, 551
Stadtland Cape, 314
Stagirus, 459
Stamford, England, 245
Stanley, Henry M., 56, 297, 368, 375
Stanzerthal, 598
State, land basis of the, 51-52, 54, 59 60, 65-66, 68, 82-83, 184, 218-219. See also Area and Boundaries
Steiermark, 191
Steppes, geographical distribution of, 25, 64, 483-486, 511 512; migrations in, 82, 133, 183, 486, 495, 512. See also Nomads
Stettin, 246, 284
Stevenson, Robert Louis, 448, 462, 464, 465
Stone Age, 121, 387, 390, 411, 522
Stour inlet, 245
Strabo, 77, 117, 283, 286, 326, 327, 347, 363, 394, 410, 457, 509, 583, 589
Strait of Dover, 304
Magellan, 356
Malacca, 425, 459
Messina, 401
Oman, 337
Tartary, 410
Stralsund, 284, 304
Stretensk, 350
Sunkin, 305
Subanon tribe, 39, 272
Sudan, caravan highway through, 99, 118, 492; Egyptian, 140, 492, 498; ethnic mixture in, 115, 120, 135, 391, 511; French, 140, 157, 362, 373, 498; nomadic raids and conquests in, 65, 89, 118, 368, 492, 495, 504, 511; Semitic civilization in, 112, 280, 510, 514; steppes of, 7, 104, 373, 483; waste boundaries in, 216. See also maps, 105, 487, 513
Sudetes Mts., 164, 224
Suevi, 86, 216
Suez Canal, 17, 151, 188, 285, 310, 313, 431; Desert of, 58; Isthmus, 17-18, 386, 393
Suffolk, 370
Suleiman Mts., marauding tribes of, 525, 587, 595; passes of, 536, 553-554
Sully, 353-354
Sulu Archipelago, 318, 320, 382
Sumatra, Arabs on coasts of, 193, 269; area of, 433, 452; Dutch in, 107-108, 581; Malay expansion from, 273, 459; terrace agriculture in, 569
Sumbawa, 456
Sunda Islands, Arabs in, 164, 269; Chinese in, 104, 267-268, 307; Dutch and Portuguese in, 107-198, 265, 433; Indian civilization in, 268, 309; link between Asia and Australia, 144, 384, 386, 392, 399; pile villages of, 320. See also Malay Archipelago
Sunday River, 368
Sungaria, 231
Sungari River, 195
Surn River, 493
Surat, 6
Survivals, 158-160, 164-165. See also Islands, Mountains, Refuges, Swamps
Sussex, 74
Sutherlandshire, 450, 564
Sutlej River, 295; upper valley of, 552, 568
Suvaroff, 544
Swabia, 85, 479, 621; mountains of, 19-20, 566
Swahili, people, 275, 559; speech, 276
Swakop Wadi, 346
Swamps, as barriers, 18, 43-44, 297, 361, 370, 400, 406, 420; places of refuge, 94, 371-372; places of survival, 117, 124-125, 370-371, 420 421, 481 482; spirit of the marshes, 372
Swaziland, 140
Sweden, Baltic location of, 271-272, 311-314; climate of, 630-631; colonies in America, 157, 253, 300 301, 369; Finns in, 119; fisheries of, 331, 631; relation to Norway, 257
Swinemünde, 246
Switzerland, agriculture in, 564, 566, 571, 576; area of, 177, 183, 564; central location of, 138,

141, 143; density of population in, 80, 522, 564; differentiation and isolation in, 113, 598, 600; emigration from, 580-582; Huguenots in, 93, 237; interplay of geographic factors in, 16-17, 523, 554; lakes of, 549; lake villages of, 318-319, 321; mountain state, 130, 133, 523, 554; political constitution of, 17, 374, 527, 590, 592-595; political expansion of, 162, 543, 549; relief of, 358-359, 558, 564, 619; stock-raising and pastures of, 573-577; winter industries in, 579
Sylt, Island of, 420, 461
Syracuse, Sicily, 252, 454
Syria, 99, 266, 268, 303, 400, 512; highlands of, 489, 534; isthmian location of, 3, 13, 151, 283; Saracens in, 84, 104
Syrian Desert, 58, 503, 507, 510, 511; markets of, 505-506
Syros Island, 450, 453
Sze-Chuan Province, mountain border of, 227, 234, 530-531, 573, 575-576; terrace agriculture in, 568-569

Tabatinga, 341
Tabriz, 528
Tacitus, 62, 281
Tafilet oasis, 506
Tagliamento Valley, 548
Tagus River, 432
Tahiti, 29, 455, 462-464
Taj Mahal, 508
Takla Makan Desert, 501, 503
Tamerlane, 495
Tamil race, 104, 425, 437
Tanger Valley, 594
Tangiers, 132, 405
Tanka people, 366-367
Taormina, 443
Tapajos River, 338
Tapujos Indians, see Ges.
Tarentum, 454
Tarim River, 57, 512; basin of, 62, 359, 502
Tartars, conquest of China, 306, 495-496; conquest of Russia, 62, 91, 109, 129, 148, 226, 368, 410, 479, 490, 493, 496, 497, 533, 632; in the Crimea, 234, 237; nomads, 4, 7, 198, 485, 503, 508, 510; organization of, 58, 494; withdrawal from Russia, 77, 110, 163, 348
Tashkent, 507
Tasmania, 385, 398, 418, 438, 441; native stock of, 170, 172, 177
Taudeni, 152, 505
Tedjend River, 163
Teheran, 528
Tehuantepec, Isthmus of, 157, 546
Tekke nomads, 491
Telegraph Plateau, 473
Temperament, and climate, 40, 620-621
Temperate Zone, 613-614, 616, 620, 623, 629, 634-635; historical belt in the North, 150, 611, 634-635; large area of North, 179, 392; movements of Europeans in the, 104, 106
Temperature, and zonal location, 615-616; extremes of, 611; modified by oceans and winds, 613-614
Tendouf, 506
Tenedos Island, 454
Teneriffe Island, 177, 441; terrace agriculture in, 569
Tennessee, 116, 535; mountains of, 45
Tennessee River, 162, 344; valley of, 92, 481
Tensas Indians, 218
Tents, of nomads, 485, 488
Terai, of India, 588, 596
Terek Pass, 529
Terek River, 235, 538-539
Ternate Island, 444
Terrace agriculture, geographical distribution of, 26, 456-458, 563, 566-571; methods of fertilizing in, 565-568, 571; system of tillage, 565-570
Terschelling Island, 420
Tertiary Period, 409; Atlantic land bridge of, 387
Tet River Valley, 547
Teutonic Orders, 429
Teutonic race, area of, 112, 116-117, 174; in Baltic and North Sea basins, 274, 304; in the lowlands and valleys of Europe, 19, 160, 170, 360; origin of, 121, 620; tropical acclimatization of, 628
Teutons, invasion of, 4, 85, 540
Texas, 65, 220-221; American ex-

pansion into Mexican, 229, 256; Indians of, 55, 102, 155; Rio Grande boundary of, 363; Rangers of, 237
Texel Island, 417
Thames River, 340, 362; estuary of, 245
Thapsacus, 337
Thasos Island, 429, 454, 459
Thebans, 22
Theiss River, 526, 565; valley of, 41, 85, 533
Thessaly, 92, 110, 402, 535; coast of, 249
Thirteen Colonies, climates in, 618; expansion of, 66, 142, 190, 197; naturally defined location of, 3, 134, 138, 142, 190
Thomas, Cyrus, 396
Thomez Indians, 218
Thrace, 252, 259, 281, 319, 402, 459
Thucydides, 77, 78, 111, 429, 459, 493
Thuringian Forest Mts., 19-20, 116, 579
Thursday Isle, 425
Tian Shan Mts., passes of, 41, 529, 550; pastures of, 541; piedmont of, 43, 163, 501
Tibbu nomads, 362, 491-492, 497, 501, 503-504
Tiber River, 82, 357, 360; valley of, 476
Tibesti highlands, 501
Tibet, boats in, 295, 297; British influence in, 100, 523; Buddhism in, 27, 112, 175, 582-585; Chinese influence in, 112, 543, 578; ethnic border zone of, 226-228, 402, 530, 543; mountain industries of, 578-579; nomads of, 483, 503, 504, 548, 587; pass routes to, 551-553; pass markets and trade of, 100, 551-552; polyandry in, 583-585; terrace agriculture in, 568. See also Central Asia and Lhassa
Tibeto-Burman stock, 102, 526, 594
Tieino Canton, 162, 543, 549, 565, 593
Tieino River, 548; valley of, 537
Tidekelt, 163
Tidore Island, 444
Tientsin, 352
Tierra del Fuego, area and decline of natives, 178; coast tribes of, 15, 36, 248, 266; scant food supply of, 182, 465
Tiflis, 528, 539, 546-547
Tigris River, 345, 349; valley of, 7, 91, 403, 476. See also Mesopotamia
Tilbury, 246
Timbuctoo, location on the Niger River, 325, 345, 367, 491, 492; terminus of caravan trade, 153, 212, 506
Time element in geographic problems, 24-26, 28-29, 123, 266, 412
Timok River, 363
Timor, 165, 208, 431, 456
Tinicum Island, 369
Tinneh Indians, 137
Titus, 90, 546
Tlingit Indians, civilization of, 395; fiord coasts and sea-faring development of, 36, 57, 137, 163, 248, 262, 417, 419
Todas, polyandry among, 583-585
Todcaster, 245
Toltecs, 374
Tombigby River, 217, 218
Tomos tribe, 552
Tomsk, 634
Tonga Islands, 56, 382, 446, 464, 465; agriculture in, 455-456; density of population in, 448-449
Tongatabu Island, 381, 449, 456, 460
Tongking, 145, 165, 308
Torres Strait, 425
Tosa River, 548
Toulouse, 338, 528
Tracht, 600
Trade-winds, 160, 389, 561; arid belt of, 104, 346, 448, 451, 483, 615; in early navigation, 30, 129
Trafalgar, 537
Trajan, 92, 230
Trans-Alleghany settlements, 48, 211; and the Mississippi River, 111, 198, 238, 249-250; backwoods communities, 135-136; defection of, 3, 231-232
Trans-Caspia, 74, 142, 355-357, 497, 499
Trans-Caucasus, 74, 162
Transit lands, 121-122
Transkei, 74
Transvaal, British influence in, 184, 187; climate of, 623; cen-

tral location of, 140, 141, 263. See also Boers
Transylvania, 526, 533, 565
Trave River, 252
Travemünde, 252
Treaty of Paris, 351
Trebizond, 547
Tredici, 222
Treitschke, Heinrich von, 19-20, 351, 629
Trek, the Great, 48, 488
Trent River, 44
Trieste, 14, 258, 283, 286
Trinidad Island, 626
Triopium, 252
Tripoli, 140, 152, 506
Tristan da Cunha, 172, 387
Troad, 454
Troezene, 250
Tromso Province, 330
Trondhjem, 257, 613
Tropic, of Cancer, 103, 272, 385; of Capricorn, 100, 385, 622
Tropics, acclimatization of whites in, 37, 46, 617, 626-628; agriculture in, 615, 628; civilizations in, 150, 635; climatic effects in, 10, 46, 626-628; colonization in, 37, 107, 114, 119, 120, 433; density of population in, 560-561, 611, 626; emigration from, 625-626; hybridization of races in, 10, 104, 107, 118, 120, 135, 628; negroid races in, 100, 103; nigrescence in, 38-40, 608; retarded development in, 611, 628, 635; trade of temperate lands with, 107, 123, 284, 611, 616-618. See also Zones of altitude
Truckee Pass, 474, 545
Tsaritzin, 493
Tsimshean Indians, fiord coasts and maritime development, 36, 57, 163, 262, 417
Tsushima Island, 428
Tuaregs, desert nomads, 7, 135, 212, 491-492, 558-559
Tun, 507
Tundra, 486, 624-625
Tunguse tribes, 78, 418, 488, 611, 624
Tunguska River, 344
Tunis, 157, 502
Tunisian Peninsula, 397, 409, 498
Tupi Indians, distribution of, 100-101, 154, 272; language of, 277; riverine and coast people, 108, 272, 338, 364
Turanians, 402. See also Mongolian race
Turfan, 503
Turin, 528, 600
Turkestan, Chinese, 43, 193, 231, 345, 359, 499, 550-552. See also Tarim River basin
Turkestan, Russian, 163, 345-346, 483, 489, 498, 507, 508, 538, 548, 550, 553, 615-616
Turkish Empire, 74; and the Bosporus, 129, 130, 180; domain in Arabia, 431, 498-499; intercontinental location of, 132, 180; Russian designs upon, 94, 547
Turkoman tribes, conquests of, 496, 508; nomads, 36, 491, 497, 499, 502-504, 508, 615-616
Turks, conquest of Constantinople by, 17, 111; in Asia Minor, 83, 92, 146, 180, 273, 402; in Danube Valley, 5, 30, 45, 186; in Europe, 3-4, 76, 135, 140, 146, 402, 430; nomads, 7, 26, 495-496
Turuchansk, 344
Tuscany, 20
Tuscarora Indians, 93, 154
Tver, 348
Twat oasis, 113, 152, 491, 506
Tyre, island location of, 250, 277; trade of, 252, 277, 331, 427, 505, 535; thalassic location, 13
Tyrol, Alpine location of, 130, 373, 522, 534, 565; agriculture and pastures in, 571, 574; German element in, 191, 543; languages and dialects in, 222, 598; political organization of, 592

Ubangui River, 481
Ugalentz Indians, 137, 278
Uganda, 374, 375, 495
Ukraine, 14, 85, 97, 137, 480, 621
Ulcaborg, 272
Ulm, 535
Ulster County, Ireland, 435
Unai Pass, 538
Unalaska Peninsula, 388
United States, area of, 60, 66, 130, 178, 194, 199; area and coast line, 256; area and rivers, 342, arid West of, 355 356, 499; Atlantic location of, 30, 151; central and interoceanic location, 130, 141 142; climate, 618; coasts, 142, 256, 261; distribu

tion of immigration in, 30, 95, 275-276, 460, 619-620; ethnic boundary zones of, 221-222; expansion of territory of, 66, 69, 142, 162, 188, 190, 193, 197-201, 209-212, 214, 218, 219, 229, 231, 256, 343-345, 349, 482, 530; relief of, 475, 522; rivers of, 342-343, 345, 350, 352, 354; Southerners and Northerners in, 619, 622; western frontier of, 148, 151, 199, 210-212, 232
Unterwalden, Canton of, 374, 527, 593
Upernivik, 249
Ural-Altaic languages, 388
Ural Mts., 157, 344, 541
Ural River, 58, 234, 490; Cossacks of, 236
Uri, Canton of, 358, 374, 527, 564, 565, 593
Uruguay, 87, 106, 351
Uspallata Pass, 546
Ustica Island, 440
Utah basin, 54
Ute Indians, 329
Utica (North Africa) 250
Utrecht, 345
Uzinza, 495

Vaal River, 106
Vailupu Island, 463
Valais, Canton of, 358-359, 360, 564-566, 593
Valdai Hills, 348, 353
Valders, 549
Val d'Ilez, 578
Valence, 338
Val Leventina, 162
Valleys, importance in mountains, 533 534, 565; longitidunal for highways and settlement, 258-259, 394, 533-535, 537, 572, 594; transverse, 529, 533-534, 537-539, 547-549, 550, 571 572, 593
Valparaiso, Chile, 546
Valtellina, 359
Vancouver, 381, 446
Vandals, in Africa, 83, 405, 627; migrations of, 77, 86 87
Van Rensselaer Island, 369
Vanua Levu, 463
Varao Island, 449
Variation, and area, 169, 173; and natural conditions, 33-34
Vasco da Gama, 270
Vasiliki, 416
Vato Island, 464
Vaygats Island, 207, 486
Velikaya River, 348
Veneti tribe, 249
Venetia, dikes of, 326
Venezuela, area and rivers of, 342; coast islands of, 265; pile villages in, 320; race elements in, 91, 106; railroads of, 355
Venice, and the Brenner Pass route, 258, 283, 539, 544, 548; art and culture of, 99, 508-509; commerce of, 258, 508; insular base of, 123, 257; origin of, 94, 439; political holdings of, 3, 271, 427, 445; thalassic location of, 13, 14, 149, 283-284, 286, 301, 314
Vercingetorix, 533
Verkhoyansk, 611, 624
Verona, 326, 369, 528
Vesontio, 369
Vespasian, 546
Vespucius, Americus, 301, 320, 406
Via Aemilia, 527
Via Aurelia, 536
Vicenza, 222
Victoria, Australia, 355
Victoria Nyanza Lake, 297, 374, 375, 386
Vienna, 30
Vindhyan Range, as barrier, 159, 538; primitive tribes in, 587, 596
Virchow, 34
Virgin Passage, 426
Virginia, first settlement of, 197, 312, 369; frontier of, 199, 236; Indians of, 155; interplay of geographic factors in, 16, 261; plantation system in tidewater, 11, 23, 161, 246, 261, 557; tobacco trade of, 47, 284
Visayan Islands, 145-146, 419-420
Visigoths, 86, 339, 488
Vistula River, 110, 353, 371; diked delta of, 108; German expansion east of, 190, 209, 223; Slavs west of, 46, 106, 224
Vitebsk, 348
Viti Leva, 444
Vitimsk, 634
Vladicaucus, 539, 546-547
Vladimir Government, 632
Volchov River, 342, 348
Volga River, and the Caspian, 338-339, 348, 374; Russian expansion down, 140, 162; Russian frontier on, 77, 226, 234, 236,

348; Tartars on, 7, 58, 163, 490, 493; tideless mouth, 259, 347
Völkerwanderung, 17, 74, 76, 84, 86, 109, 111
Volney, 58
Vologda, 340
Volturno River, 369
Vosges Mts., 39, 527, 536, 539, 566; as natural boundary, 214, 542
Voyageurs, 47, 135, 190, 354, 364

Waal River, 352; swamps of, 117
Wabash River, 364
Wadai, 99, 140, 218, 526
Wadis, as desert routes, 346
Wagner, Moritz, 115, 169
Wahabi Bedouins, 512
Waldenses, 161, 222, 600
Wales, 319, 369; area of, 398; boats of 296-297; Celtic survival in, 403, 421; highlands of, 535, 564; piedmont towns of, 527
Walfish Bay, 263, 316
Wallace, D. M., 76
Wallace's Line, 208, 473
Wallachians, 404
Wallis Island, 448
Walls, as defense against nomads, 492-493
Wangeroog Island, 417
Wappäus, J., 509
War, of 1812, 23, 540-541; of the Roses, 52
Warraus, Indians, 320
Wash, 245, 286, 324, 370
Washington, George, 199
Washita River, 155
Water, advantages of boundary on, 318-319; economy of, 330-331; man's relation to, 318-333; proportion of land to, 293, 333, 380; unity of earth's, 292, 337, 376. See also Fisheries, Navigation, Irrigation and Reclamation
Waterpower in mountains, 70, 527, 579
Watersheds, expansion over low, 44, 338, 343-345, 348-349; river canals over, 353-354
Waziri Afghans, 553
Wealden Forest, 370
Wei River valley, 185
Welland Canal, 247
Welle River, 155, 364
Wends, 371
Weser River, 106, 164, 246, 340, 478-479
Wessex, 372
West Africa, coast of, 280; coast middlemen of, 278, 321; European colonies in, 153, 157-158, 267, 370; inland origin of coast tribes of, 266-267, 271
Westerly winds, 30, 388, 613-614
Westermarck, 585
Western Ghats, 584, 610
West Friesland, 420
West Indies, see Antilles
Westman Isles, 43, 449
Westmoreland, 564
Westward movement, 109, 343-344, 533
West Virginia, in the Civil War, 23, 161, 557
Whiskey Rebellion, 232
White Horse Pass, 531
White Nile, 41, 155, 325
White Race, area and distribution of, 174, 391
White Russia, 224, 371
White Sea, 210, 255; fisheries of, 207, 332; rivers of, 340, 353
Wilderness Road, 199
Willamette River, 98
William the Conqueror, 372
Winds, see Monsoons, Trade-winds and Westerlies
Windward Isles, 265, 453
Winsor, Justin, 388
Wisby, 304
Wisconsin, 633
Wisconsin River, 349, 364
Wismar, 284
Withdrawal of peoples, 80-81, 92-94, 163, 176-178, 272-273, 526
Witwatersrand, mines of, 187, 580, 623
World Ocean, 311, 340
World relations, evolution of, 13, 67-69, 76, 78, 149
Würtemberg, 373, 577
Wyandot Indians, 89

Xenophon, 216
Xerxes, 546
Xingu River, 338

Yaks, 227, 551
Yakuts, 418, 624
Yakutsk, 344, 486
Yalmal Peninsula, 486
Yamese Indians, 93
Yanaon, 165
Yangtze Kiang, 110, 326, 329, 352,

367, 568-569, 573; trade of, 341-343
Yarkand, 359, 501, 550, 552, 587
Yaroslaf Government, 631
Yazoo River, Indians of, 326
Yellow Sea, 308, 336, 341, 399, 410; as enclosed sea basin, 137, 306-307, 312
Yellowstone Valley, 98
Yemen, early civilization and naturally defined location of, 123, 197, 635; highlands of, 489, 595, 583; maritime colonies of, 96, 123, 164; maritime trade of, 193, 268-270, 309; terrace agriculture in, 26, 303, 567
Yenisei River, 207, 344, 388
Yermak, conquest of, 344
Yezd, 143
Yezo Island, 143, 187, 272, 305, 388, 442
Yiddish, 124
Yo River, 295, 362, 492
Yomut nomads, 491, 499
York, 245
York Peninsula, 382
Younghusband, Sir Francis, 43, 531
Yucatan, 395, 397
Yukagirs, 388, 624
Yukon River, highway, 340; Indians of, 116, 249; mountain passes to gold fields of, 278, 544
Yunnan Province, 227

Zambesi River, 36, 306, 355, 362, 368; mound villages of, 325
Zamboanga Peninsula, 272
Zandeh, 155, 216
Zante Island, 447
Zanzibar Island, Arab expansion to, 252-253, 265, 270, 276, 406, 512; density of population in, 451, 453; East Indian immigrants in, 268, 626; Portuguese station in, 157; Sultan of, 431; Swahili people of, 275
Zealand, Island of, location, 382, 397, 445
Zeila, 305
Zionists, 111
Zirian nomads, 486
Zogi La Pass, 575
Zona Libre, 220-221
Zones, see Frigid, Temperate and Tropics
Zones of altitude, 557-560, 567-568; density of population in, 558-561, 564-565; economic and cultural belts of, 557-561, 573, 575, 577-578; in the Tropics, 560-561, 567, 607, 616-617
Zoological realms, 208, 385, 473
Zoroastrianism, 599
Zug Canton, 527
Zurich, 528; Canton, 527, 564
Zuyder See, 324, 371

STANDARD BOOKS IN ECONOMICS

BÜCHER'S INDUSTRIAL EVOLUTION

Translated by Dr. S. M. WICKETT, Lecturer in Toronto University. 393 pp. 8vo. $2.50.

The Outlook:—A work of prime importance to economic students. While German in the thoroughness of its scholarship, it is almost Gallic in its style, and is, for the most part, decidedly interesting reading.

CLARK: THE LABOR MOVEMENT IN AUSTRALASIA

By VICTOR S. CLARK. 327 pp. 12mo. $1.50 net.

Quarterly Journal of Economics:—A valuable work based upon investigation in the field. Treats judicially the various aspects of the Australian labor movement and estimates critically its significance.

HOLLANDER AND BARNETT: STUDIES IN AMERICAN TRADE UNIONISM

Edited by J. H. HOLLANDER and G. E. BARNETT, Professors in Johns Hopkins University. 380 pp. 8vo. $2.75 net.

Twelve papers by graduate students and officers of Johns Hopkins University, the results of original investigations.

McPHERSON: THE WORKING OF THE RAILROADS

By LOGAN G. MCPHERSON. 273 pp. 12mo. $1.50 net.

Simply and lucidly tells what a railroad company is, what it does, and how it does it.

MORE'S WAGE-EARNERS' BUDGETS

A Study of Standards and Cost of Living in New York City. By LOUISE B. MORE. With a preface by Professor F. H. GIDDINGS. 280 pp. 8vo. $2.50 net.

A report of the first investigation carried on under the direction of the Committee on Social Investigations at Greenwich House, a social settlement on the lower West Side of New York City, among workingmen's families of different races and occupations.

ZARTMAN: THE INVESTMENTS OF LIFE INSURANCE COMPANIES

By LESTER W. ZARTMAN, Instructor in Yale University. 359 pp. 12mo. $1.25 net.

It analyzes investments and the earning power of the various assets of life insurance companies. The interest rate is calculated by a new and exact method. The author also discusses the relations of the investments to social welfare, and the proper control of the immense assets of the companies.

HENRY HOLT AND COMPANY

34 West 33d Street New York

TEXT-BOOKS IN ECONOMICS

ADAMS'S SCIENCE OF FINANCE

By HENRY C. ADAMS, Professor in the University of Michigan. 578 pp. 8vo. (*American Science Series.*) $3.00.

Edwin R. A. Seligman, Columbia University, in "Political Science Quarterly":—Will at once command attention as a lasting contribution to economic literature. . . . It is perhaps no exaggeration to say that Professor Adams is at the head of those American scholars who have grasped the essential spirit of modern industrial life; and it is likewise no exaggeration to claim for this volume the distinction of being one of the most original, the most suggestive, and most brilliant productions that have made their appearance in recent decades.

DANIELS'S ELEMENTS OF PUBLIC FINANCE

By WINTHROP MORE DANIELS, Professor of Political Economy in Princeton University. 373 pp. 12mo. $1.50.

F. Spencer Baldwin, Professor in Boston University: It is a piece of work well done both from a scientific and a literary point of view - a text book with a style. . . . The lucid explanation of the financial system of the United States makes the book particularly valuable for the American student.

SCOTT'S MONEY AND BANKING

By W. A. SCOTT, Professor in the University of Wisconsin. Revised. 377 pp. 8vo. $2 00.

H. E. Mills, Professor in Vassar College:—It is clear, comprehensive, and conservative. All in all, it seems to me the best single book to use in connection with a course on Money and Banking.

SEAGER'S PRINCIPLES OF ECONOMICS

By HENRY R. SEAGER, Professor in Columbia University. Fourth Edition of *Introduction to Economics.* Revised and Enlarged. 642 pp. 8vo. $2 25.

David Kinley, University of Illinois:- It shows improvement with every edition and it always was a first-class book.

SEAGER'S ECONOMICS, BRIEFER COURSE

By HENRY R. SEAGER, Professor in Columbia University. 467 pp. Large 12mo $1 75.

Intended primarily for those who wish to give only that amount of attention to economic theory that is essential to the intelligent discussion of practical economic problems.

HENRY HOLT AND COMPANY

34 West 33d Street New York

573.4 S47
(4)
SPECIAL REFERENCE
LaJeune Ronald
FEB 2 3 '50

Carnegie Institute of Technology Library

PITTSBURGH, PA.

Rules for Lending Books.

1. Reserve books may be used only in the library, until 8 P. M. After that hour they may be requested for outside use, due the following morning at 9:30. Ask at the desk about week-end borrowing privilege.

2. Books not of strictly reference nature, and not on reserve may be borrowed for longer periods, on request. **Date due** is stamped on date slip in book.

3. A fine of five cents an hour is charged on overdue reserve books. Two cents a day fine is charged on overdue unreserved books.

Arts Branch Library.

Most of the books in this collection are for use in the library only. A few books and mounted plates may be borrowed. Ask the assistant in charge.

UNIVERSAL LIBRARY
138 264
UNIVERSAL LIBRARY